

SAMSUNG

SERVICE DIVISION

Samsung Electronics America Inc.
400 Valley Road, Suite 201
Mount Arlington, NJ 07856
TEL: 1-800-SAMSUNG
(1-800-726-7864)
www.samsungusa.com



Owner's Instructions

LCD TV with Life-Like Picture & Sleek Design LTN325W | LTN406W

BN68-00448A-02

SAMSUNG

Owner's Instructions


LCD TV with Life-Like Picture & Sleek Design LTN325W | LTN406W



Thank You for Choosing Samsung

Thank you for choosing Samsung! Your new Samsung TV represents the latest in television technology. We designed it with easy-to-use on-screen menus and closed captioning capabilities, making it one of the best products in its class. We are proud to offer you a product that will provide convenient, dependable service and enjoyment for years to come.

Important Safety Information

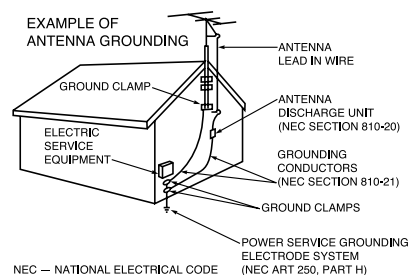
 Always be careful when using your TV receiver. To reduce the risk of fire, electrical shock, and other injuries, keep these safety precautions in mind when installing, using, and maintaining your machine.

- Read all safety and operating instructions before operating your TV.
- Keep the safety and operating instructions for future reference.
- Heed all warnings on the TV receiver and in the operating instructions.
- Follow all operating and use instructions.
- Unplug the TV receiver from the wall outlet before cleaning. Use a damp cloth; do not use liquid or aerosol cleaners.
- Never add any attachments and/or equipment without approval of the manufacturer. Such additions can increase the risk of fire, electric shock, or other personal injury.
- Do not use the TV receiver where contact with or immersion in water is a possibility, such as near bath tubs, sinks, washing machines, swimming pools, etc.
- Do not place the TV on an unstable cart, stand, tripod, bracket, or table where it can fall. A falling TV can cause serious injury to a child or adult, and serious damage to the appliance. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer or sold with the TV. Follow the manufacturer's instructions when mounting the unit, and use a mounting accessory recommended by the manufacturer. Move the TV and cart with care. Quick stops, excessive force, and uneven surfaces can make the unit and cart unsteady and likely to overturn.
- Provide ventilation for the TV receiver. The unit is designed with slots in the cabinet for ventilation to protect it from overheating. Do not block these openings with any object, and do not place the TV receiver on a bed, sofa, rug, or other similar surface. Do not place it near a radiator or heat register. If you place the TV receiver on a rack or bookcase, ensure that there is adequate ventilation and that you've followed the manufacturer's instructions for mounting.
- Operate your TV receiver only from the type of power source indicated on the marking label. If you are not sure of the type of power supplied to your home, consult your appliance dealer or local power company.
- Use only a grounded or polarized outlet. For your safety, this TV is equipped with a polarized alternating current line plug having one blade wider than the other. This plug will fit into the power outlet only one way. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug still does not fit, contact your electrician to replace your outlet.



- Protect the power cord. Power supply cords should be routed so that they won't be walked on or pinched by objects placed on or against them. Pay particular attention to cords at plugs, convenience receptacles, and the point where they exit from the unit.
- Unplug the TV from the wall outlet and disconnect the antenna or cable system during a lightning storm or when left unattended and unused for long periods of time. This will prevent damage to the unit due to lightning and power-line surges.
- Avoid overhead power lines. An outside antenna system should not be placed in the vicinity of overhead power lines or other electric light or power circuits or where it can fall into such power lines or circuits. When installing an outside antenna system, be extremely careful to keep from touching the power lines or circuits. Contact with such lines can be fatal.
- Do not overload the wall outlet or extension cords. Overloading can result in fire or electric shock.
- Do not insert anything through the openings in the unit, where they can touch dangerous voltage points or damage parts. Never spill liquid of any kind on the TV.

- Ground outdoor antennas. If an outside antenna or cable system is connected to the TV, be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges. Section 810 of the National Electrical Code, ANSI/NFPA No.70-1984, provides information about proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.



- Do not attempt to service the TV yourself. Refer all servicing to qualified service personnel. Unplug the unit from the wall outlet and refer servicing to qualified service personnel under the following conditions:
 - when the power-supply cord or plug is damaged
 - if liquid has been spilled on the unit or if objects have fallen into the unit
 - if the TV has been exposed to rain or water
 - if the TV does not operate normally by following the operating instructions
 - if the TV has been dropped or the cabinet has been damaged
 - when the TV exhibits a distinct change in performance
- If you make adjustments yourself, adjust only those controls that are covered by the operating instructions. Adjusting other controls may result in damage and will often require extensive work by a qualified technician to restore the TV to normal.
- When replacement parts are required, be sure the service technician uses replacement parts specified by the manufacturer or those that have the same characteristics as the original part. Unauthorized substitutions may result in additional damage to the unit.
- Upon completion of any service or repairs to this TV, ask the service technician to perform safety checks to determine that the TV is in a safe operating condition.

CAUTION
RISK OF ELECTRIC SHOCK DO NOT OPEN
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

This symbol indicates high voltage is present inside. It is dangerous to make any kind of contact with any inside part of this product.



This symbol alerts you that important literature concerning operation and maintenance has been included with this product.



Note to CATV system installer: This reminder is provided to call CATV system installer's attention to Article 820-40 of the National Electrical Code (Section 54 of Canadian Electrical Code, Part I), that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building as close to the point of cable entry as practical.

Caution: FCC/CSA regulations state that any unauthorized changes or modifications to this equipment may void the user's authority to operate it.

Caution: To prevent electric shock, match the wide blade of plug to the wide slot, and fully insert the plug.

Attention: pour éviter les chocs électriques, introduire la lame la plus large de la fiche dans la borne correspondante de la prise et pousser jusqu'au fond.

Important: One Federal Court has held that unauthorized recording of copyrighted TV programs is an infringement of U.S. copyright laws. Certain Canadian programs may also be copyrighted and any unauthorized recording in whole or in part may be in violation of these rights.

To prevent damage which may result in fire or electric shock hazard, do not expose this appliance to rain or moisture.

As an ENERGY STAR Partner.

Samsung Electronics America, Inc. has determined that this product or product model meets the ENERGY STAR guidelines for energy efficiency.

FCC Information

User Instructions

The Federal Communications Commission Radio Frequency Interference Statement includes the following warning:

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television receptions, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

User Information

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. If necessary, consult your dealer or an experienced radio/television technician for additional suggestions. You may find the booklet called How to Identify and Resolve Radio/TV Interference Problems helpful. This booklet was prepared by the Federal Communications Commission. It is available from the U.S. Government Printing Office, Washington, DC 20402, Stock Number 004-000-00345-4.

The party responsible for product compliance:
SAMSUNG ELECTRONICS CO., LTD
America QA Lab of Samsung
3351 Michelson Drive,
Suite #290, Irvine, CA92612 USA

Warning

User must use shielded signal interface cables to maintain FCC compliance for the product. Provided with this monitor is a detachable power supply cord with IEC320 style terminations. It may be suitable for connection to any UL Listed personal computer with similar configuration. Before making the connection, make sure the voltage rating of the computer convenience outlet is the same as the monitor and that the ampere rating of the computer convenience outlet is equal to or exceeds the monitor voltage rating. For 120 Volt applications, use only UL Listed detachable power cord with NEMA configuration 5-15P type (parallel blades) plug cap. For 240 Volt applications use only UL Listed Detachable power supply cord with NEMA configuration 6015P type (tandem blades) plug cap.

IC Compliance Notice

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations of ICES-003. Cet appareil Numérique de classe B respecte toutes les exigences du Règlement NMB-03 sur les équipements produisant des interférences au Canada.

Notice de Conformité IC

Cet appareil numérique de classe B respecte toutes les exigences du Règlement ICES-003 sur les équipements produisant des interférences au Canada.

VCCI

This is a Class B product based on the standard of the Voluntary Control Council for Interference by Information Technology Equipment (VCCI). If this is used near a radio or television receiver in a domestic environment, it may cause radio interference. Install and use the equipment according to the instruction manual.

This Class B digital apparatus complies with Canadian ICES-003. Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and
(2) This device must accept any interference received, including interference that may cause undesired operation.
This television receiver provides display of television closed captioning in accordance with §15.119 of the FCC rules.

Important Warranty Information Regarding Television Format Viewing

Standard screen format televisions (4:3, the aspect ratio of the screen width to height) are primarily designed to view standard format full-motion video. The images displayed on them should primarily be in the standard 4:3 ratio format and constantly moving.

Displaying stationary graphics and images on screen, such as the dark top and bottom letterbox bars (wide screen pictures), should be limited to no more than 15% of the total television viewing per week.

Wide screen format televisions (16:9, the aspect ratio of the screen width to height) are primarily designed to view wide screen format full-motion video. The images displayed on them should primarily be in the wide screen 16:9 ratio format, or expanded to fill the screen if your model offers this feature, and constantly moving. Displaying stationary graphics and images on screen, such as the dark side-bars on non-expanded standard format television video and programming, should be limited to no more than 15% of the total television viewing per week.

Additionally, viewing other stationary images and text such as stock market reports, video game displays, station logos, web sites or computer graphics and patterns, should be limited as described above for all televisions. Displaying any stationary images that exceed the above guidelines can cause uneven aging of picture tubes (LCDs) that leave subtle, but permanent burned-in ghost images in the television picture. To avoid this, vary the programming and images, and primarily display full screen moving images, not stationary patterns or dark bars. On television models that offer picture sizing features, use these controls to view the different formats as a full screen picture.

Be careful in the selection and duration of television formats used for viewing. Uneven LCD aging as a result of format selection and use, as well as other burned-in images, is not covered by your Samsung limited warranty.

[Note]

If a still image is displayed for an extended period of time, residual images or blurring may appear.

When you need to leave the monitor unused for an extended period of time, adjust the settings so that the monitor automatically goes into energy saving mode or activates the screen saver to display moving images.

CONTENTS

Chapter 1: Your New TV	1
List of Features	1
List of Parts	1
Familiarizing Yourself with Your New TV	2
Front Panel Buttons	2
Rear Panel Jacks	3
Remote Control	4
Installing Batteries in the Remote Control	6
Chapter 2: Installation	7
Connecting VHF and UHF Antennas	7
Antennas with 300-ohm Flat Twin Leads	7
Antennas with 75-ohm Round Leads	8
Separate VHF and UHF Antennas	8
Connecting Cable TV	8
Cable without a Cable Box	8
Connecting to a Cable Box that Descrambles All Channels	9
Connecting to a Cable Box that Descrambles Some Channels	9
Connecting a VCR	11
Connecting an S-VHS VCR	12
Connecting a DVD Player	13
Connecting a Digital TV Set-Top Box	13
Connecting the Speakers	14
Connecting a PC	15
Chapter 3: Special Features	16
Turning the TV On and Off	16
Changing Channels	16
Using the Channel Buttons	16
Using the Pre-CH Button to select the Previous Channel	16
Adjusting the Volume	16
Using Mute	17
Viewing the Display	17
Viewing the Menus	17
Setting Up Your Remote Control	18
Chapter 4: Operation	22
Plug & Play Feature	22
Memorizing the Channels	23
Selecting the Video Signal-source	23
Storing Channels in Memory (Automatic Method)	24
Adding and Erasing Channels (Manual Method)	25
To Select TV/Input	25
To Edit the Input Source Name	26
Using Automatic Picture Settings	27
Customizing the Picture	28
Using Automatic Sound Settings	29
Customizing the Sound	30
Selecting a Menu Language	31
Setting the Blue Screen Mode	32
To Select an External Input Device	33
LNA (Low Noise Amplifier)	34

CONTENTS

Fine Tuning Channels	35
Viewing Picture-in-Picture	36
Activating Picture-in-Picture	36
Swapping the Contents of the PIP and Main image	37
Changing the PIP Channel	37
Changing the Size of the PIP Window	37
Changing the Screen Size	38
Freezing the Picture	38
Adjusting the Background Color	39
Setting the DNIe	40
To Enjoy Dolby Digital Sound	41
Turning the Dolby ProLogic II On	41
Turning the Dynamic Range On	42
Speaker Settings	43
Level	44
Time Delay	45
TRADEMARK & LAVEL LICENSE NOTICE	46
Ideal Speaker Placement	46
Changing the STEREO Settings	47
Selecting the Sound	48
To Select an External Output Device	49
Adjusting the Headphone Sound	50
Setting the Clock	51
Setting the On/Off Timer	52
Setting the Sleep Timer	54
Using the V-Chip	55
Setting Up Your Personal ID Number (PIN)	55
How to Enable/Disable the V-Chip	56
How to Set up Restrictions Using the “TV guidelines”	56
How to Set up Restrictions using the MPAA Ratings: G, PG, PG-13, R, NC-17, X	58
How to Reset the TV after the V-Chip Blocks a Channel (“Emergency Escape”)	59
Chapter 5: PC Display	60
Using Your TV as a Computer (PC) Display	60
How to Set up Your PC Software (Windows only)	60
Adjusting the Screen Quality	61
Changing the Screen Position	62
To Initialize the Screen Settings	63
How to DVI Select	64
How to Auto Adjust	65
Chapter 6: Troubleshooting	66
Identifying Problems	66
Appendix	68
Installing Stand	68
Using the Anti-Theft Kensington Lock	69
How to Install the Wall Bracket	70
Pin Assignments	72
Specifications	73
Display Modes	74

Chapter One

YOUR NEW TV

List of Features

Your TV was designed with the latest technology. This TV is a high-performance unit that includes the following special features:

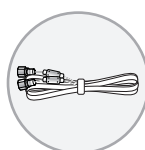
- Easy-to-use remote control
- Easy-to-use on-screen menu system
- Automatic timer to turn the TV on and off
- Adjustable picture and sound settings that can be stored in the TV's memory
- Automatic channel tuning for up to 181 channels
- A special filter to reduce or eliminate reception problems
- Fine tuning control for the sharpest picture possible
- A built-in multi-channel sound decoder for stereo and bilingual listening
- Equiped, dual channel speakers
- Headphone jack for private listening
- 16:9 letter box format available depending upon source

List of Parts

Please make sure the following items are included with your LCD TV.
If any items are missing, contact your dealer.



Remote Control(BN59-00364B)
& Batteries (AAA x 2)



RF Cable
(AA39-00039A)



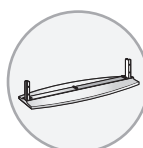
Power Cord
(BH39-10339X)



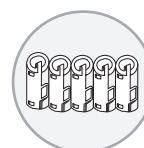
Owner's
Instructions



Front
Speaker
(BN96-00568C)



Stand
(BN96-00380A)



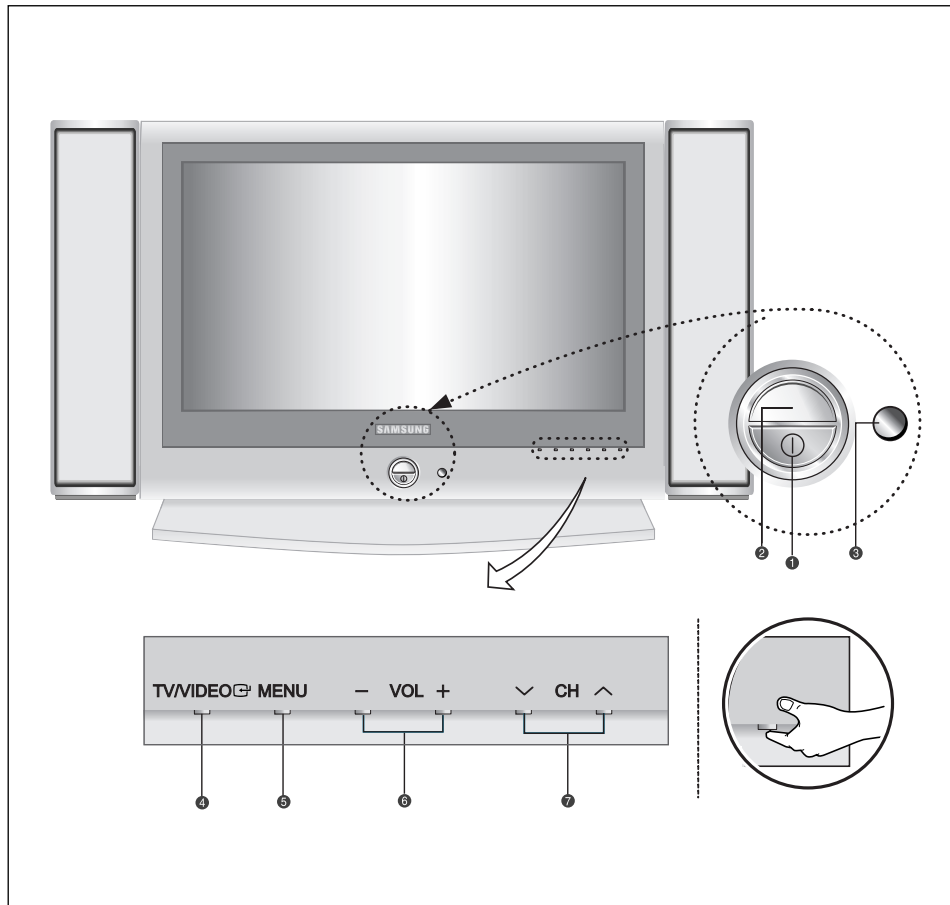
Core(3301-001456)
x 5

YOUR NEW TV

Familiarizing Yourself with Your New TV

Front Panel Buttons

The buttons on the front panel control your TV's basic features, including the on-screen menu. To use the more advanced features, you must use the remote control.



❶ ① POWER

Press to turn the TV on and off.

❷ ② POWER INDICATOR

Lights up when you turn the power off.

❸ ③ REMOTE CONTROL SENSOR

Aim the remote control towards this spot on the TV.

❹ ④ TV/VIDEO (See Page 17)

Displays a menu of all of the available input sources (TV, VIDEO1, VIDEO2, S-VIDEO, Component 1, Component 2, PC/DVI).

❺ ⑤ MENU

Press to see an on-screen menu of your TV's features.

❻ ⑥ - VOL +

Press to increase or decrease the volume. Also used to select items on the on-screen menu.

❼ ⑦ ∇ CH ▲

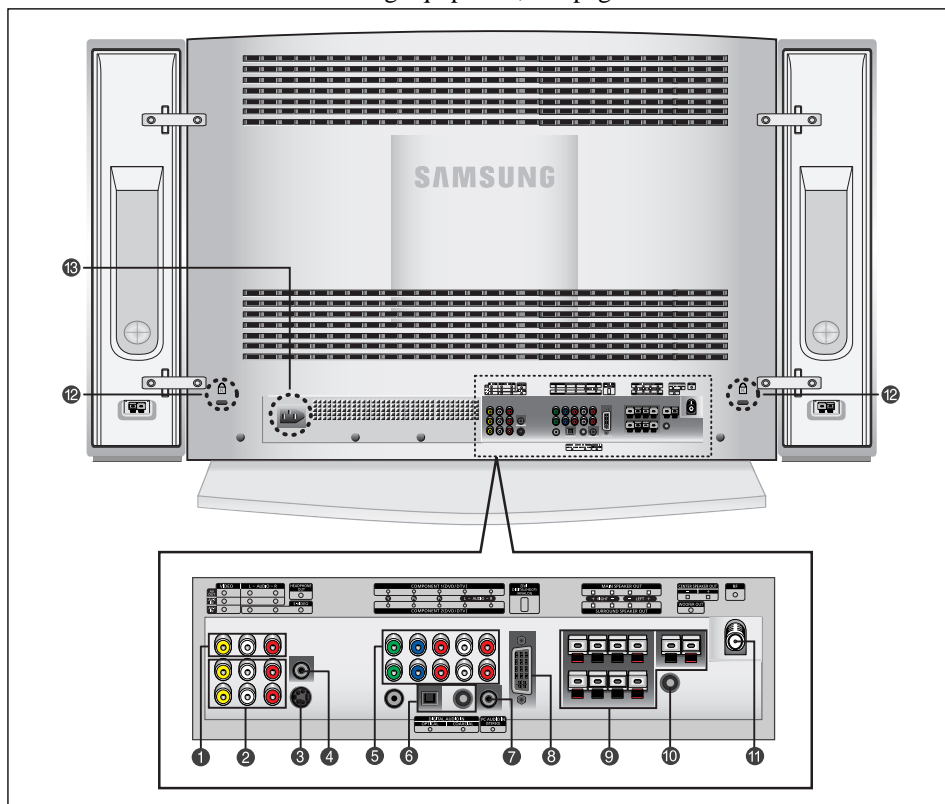
Press to change channels. Also press to highlight various items on the on-screen menu. (Without the Remote Control, You can turn on TV by using the Channel buttons.)

YOUR NEW TV

Rear Panel Jacks

Use the rear panel jacks to connect an A/V component that will be connected continuously, such as a VCR or a DVD player.

For more information on connecting equipment, see pages 7-15.



① VIDEO/AUDIO OUTPUT

② VIDEO/AUDIO INPUT

③ SUPER VIDEO INPUT

④ HEADPHONE JACK

⑤ COMPONENT

⑥ DIGITAL AUDIO IN JACK

⑦ PC AUDIO INPUT

⑧ PC VIDEO(DVI-D) INPUT

⑨ SPEAKER OUT JACK

⑩ WOOFER OUTPUT

⑪ TV ANTENNA

⑫ KENSINGTON LOCK

⑬ POWER INPUT

YOUR NEW TV

Remote Control

You can use the remote control up to a distance of about 23 feet from the TV. When using the remote, always point it directly at the TV.

-
- 1 POWER**
Turns the TV on and off.
(See Page 16)
 - 2 P.SIZE**
Press to change the screen size.
(See Page 38)
 - 3 P.MODE**
Adjusts the TV picture by selecting one of the preset factory settings.
(See Page 27)
 - 4 MUTE**
Press to temporarily cut off the sound.
(See Page 17)
 - 5 MENU**
Displays the main on-screen menu.
(See Page 17)
 - 6 LCD SCREEN**
Shows the battery status and selected input source device.
Shows the currently selected input source.
 - 7 INPUT SELECT BUTTON**
Use to select an input source - TV, Set-top box (Digital Broadcast Receiver), video, cable or DVD.
(See Page 18-20)
 - 8 CH ^ and CH v (Channel Up/Down)**
Press CH ^ or CH v to change channels.(See Page16)
VOL + and VOL -
Press to increase or decrease the volume. (See Page 16)
 - 9 TV/VIDEO**
Press to display all of the available video sources. (See Page 25-26)
 - 10 JOYSTICK**
Use to select on-screen menu items and change menu values.
(The remote control will only function with VCR or DVD units that are compatible with the LCD TV.)
 - 11 VIDEO/DVD CONTROL BUTTON**
Use this button to control the video or DVD functions.
• Works only with compatible VCR or DVD players.

YOUR NEW TV

12 **+100**

Press to select channels over 100.
For example, to select channel 121,
press "+100", then press "2" and "1".
(See Page 24)

13 **SLEEP TIMER**

Press to select a time for the TV to
turn off automatically.
(See Page 54)

14 **AUTOMATIC CHANNEL BUTTON**

Press to automatically store
selected TV/cable channels.
(See Page 24)

ADD/ERASE

Press to add or erase channels
in the TV's memory.
(See Page 25)

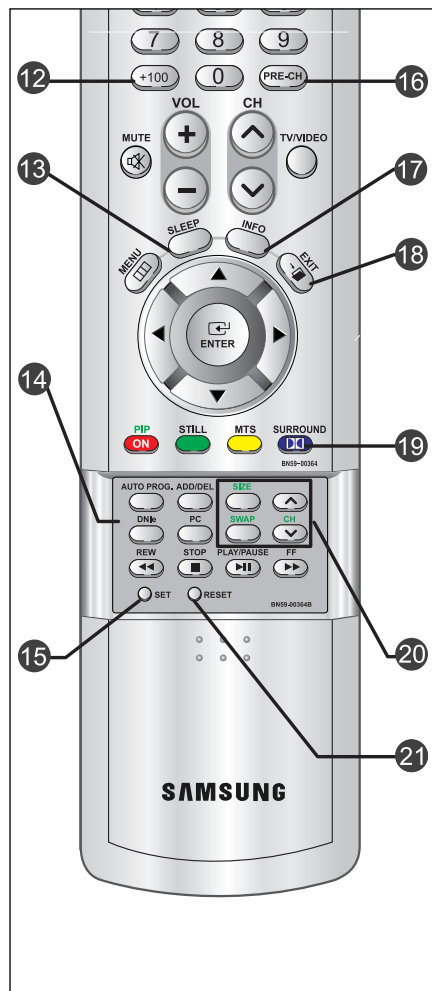
DNLe BUTTON

Press to improve the digital video
quality. (See Page 40)

PC

Press to switch to the PC mode.

15 **SET BUTTON**



16 **PRE-CH**

Tunes to the previous channel.
(See Page 16)

17 **INFO**

Press to display the current channel
and audio/video settings.
(See Page 17)

18 **EXIT**

Press to exit the menu.

19 **PIP**

See the PIP screen section of this
manual. (See Page 36)

STILL

Press to stop the action during
a particular scene. Press again to
resume normal video.
(See Page 38)

MTS BUTTON

Press to select MONO or STEREO
mode. (See Page 47)

DOLBY DIGITAL BUTTON

Press to enjoy theater-quality 3-D
sound. (See Page 41-45)

20 **PIP CONTROLS**

(See Page 37)

CH

Displays the available channels
in sequence.
(These buttons change channels
in the PIP window only.)

SIZE

Press to make the PIP window
double, large or small.

SWAP

Exchanges the video signal that is
currently displayed on the main
screen with the signal in the PIP
window.

(While the main screen is in
PC mode, it does not work.)

21 **RESET**

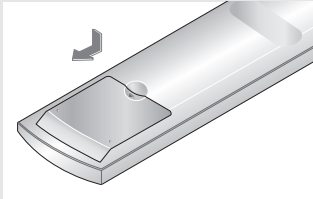
When your remote does not work,
change the batteries and press the
"Reset" button for 2-3 seconds
before use.

YOUR NEW TV

Installing Batteries in the Remote Control

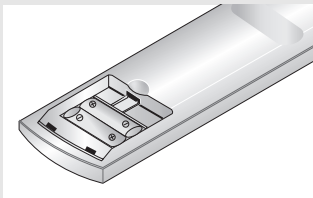
1

Slide the cover out completely.



2

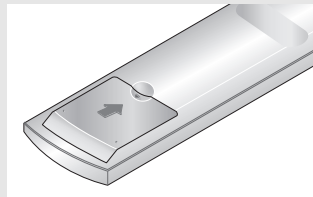
Install two AAA size batteries.



◀ Make sure to match the “+” and “-” ends of the batteries with the diagram inside the compartment.

3

Replace the cover.



◀ Remove the batteries and store them in a cool, dry place if you won't be using the remote control for a long time.

The remote control can be used up to about 23 feet from the TV.

(Assuming typical TV usage, the batteries last for about one year.)

The remote control doesn't work!

Check the following:

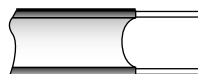
1. Is the TV power switch on?
2. Are the plus and minus ends of the batteries reversed?
3. Did the battery run out?
4. Is the power out, or is the power cord unplugged?
5. Is there a special fluorescent light or a neon sign nearby?

Chapter Two

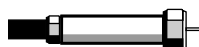
INSTALLATION

Connecting VHF and UHF Antennas

If your antenna has a set of leads that look like this, see “Antennas with 300-ohm Flat Twin Leads” below.



If your antenna has one lead that looks like this, see “Antennas with 75-ohm Round Leads” on page 8.



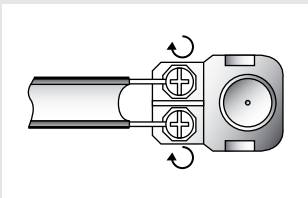
If you have two antennas, see “Separate VHF and UHF Antennas” on page 8.

Antennas with 300-ohm Flat Twin Leads

If you are using an off-air antenna (such as a roof antenna or “rabbit ears”) that has 300-ohm twin flat leads, follow the directions below.

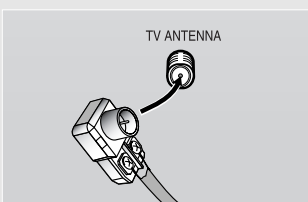
1

Place the wires from the twin leads under the screws on a 300-75 ohm adaptor (not supplied). Use a screwdriver to tighten the screws.



2

Plug the adaptor into the TV ANTENNA terminal on the bottom of the back panel.

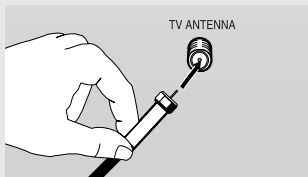


INSTALLATION

Antennas with 75-ohm Round Leads

1

Plug the antenna lead into the TV ANTENNA terminal on the bottom of the back panel.

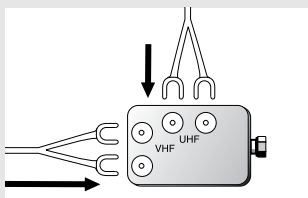


Separate VHF and UHF Antennas

If you have two separate antennas for your TV (one VHF and one UHF), you must combine the two antenna signals before connecting the antennas to the TV. This procedure requires a an optional combiner-adaptor (available at most electronics shops).

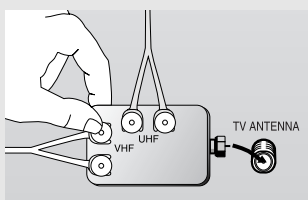
1

Connect both antenna leads to the combiner.



2

Plug the combiner into the TV ANTENNA terminal on the bottom of the rear panel.



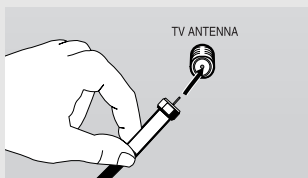
Connecting Cable TV

To connect to a cable TV system, follow the instructions below.

Cable without a Cable Box

1

Plug the incoming cable into the TV ANTENNA terminal on back of the TV.



◀ Because this TV is cable-ready, you do not need a cable box to view unscrambled cable channels.

INSTALLATION

Connecting to a Cable Box that Descrambles All Channels

1

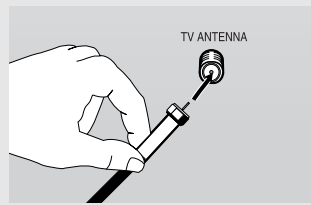
Find the cable that is connected to the ANTENNA OUT terminal on your cable box.



◀ This terminal might be labeled “ANT OUT”, “VHF OUT”, or simply, “OUT”.

2

Connect the other end of this cable to the TV ANTENNA terminal on the back of the TV.

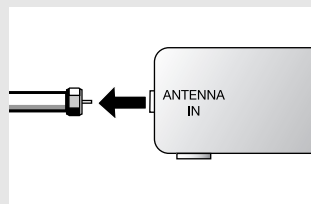


Connecting to a Cable Box that Descrambles Some Channels

If your cable box descrambles only some channels (such as premium channels), follow the instructions below. You will need a two-way splitter, an RF (A/B) switch, and four lengths of coaxial cable. (These items are available at most electronics stores.)

1

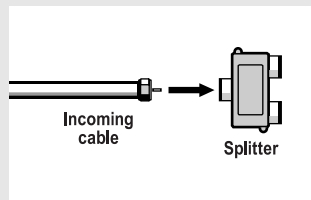
Find and disconnect the cable that is connected to the ANTENNA IN terminal on your cable box.



◀ This terminal might be labeled “ANT IN”, “VHF IN”, or simply, “IN”.

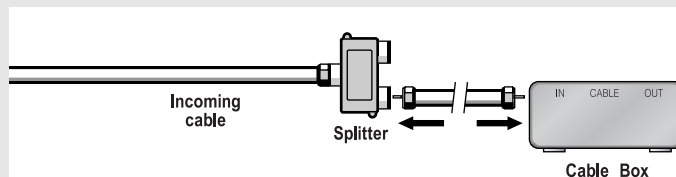
2

Connect this cable to a two-way splitter.



3

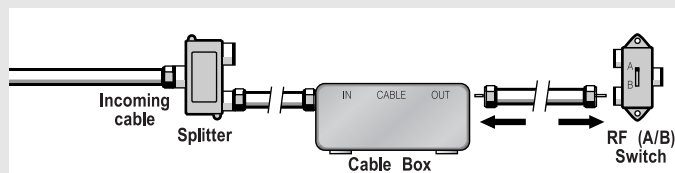
Connect a coaxial cable between an OUTPUT terminal on the splitter and the IN terminal on the cable box.



INSTALLATION

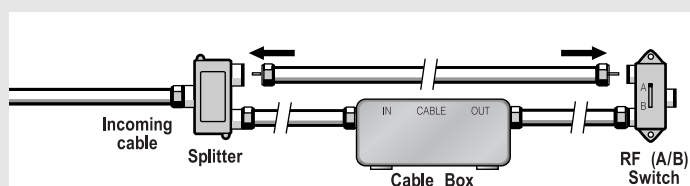
4

Connect a coaxial cable between the ANTENNA OUT terminal on the cable box and the B-IN terminal on the A/B switch.



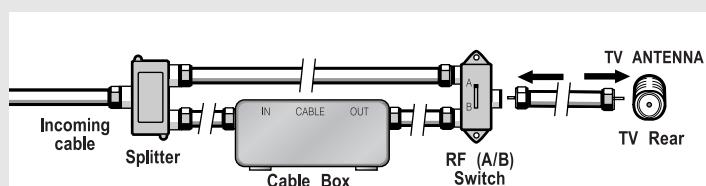
5

Connect another cable between the other OUT terminal on the splitter and the A-IN terminal on the RF (A/B) switch.



6

Connect the last coaxial cable between the OUT terminal on the RF (A/B) switch and the VHF/UHF terminal on the rear of the TV.



After you've made this connection, set the A/B switch to the "A" position for normal viewing. Set the A/B switch to the "B" position to view scrambled channels. (When you set the A/B switch to "B," you will need to tune your TV to the cable box's output channel, which is usually channel 3 or 4.)

INSTALLATION

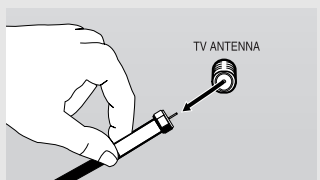
Connecting a VCR

These instructions assume that you have already connected your TV to an antenna or a cable TV system (according to the instructions on pages 7-10).

Skip step 1 if you have not yet connected to an antenna or a cable system.

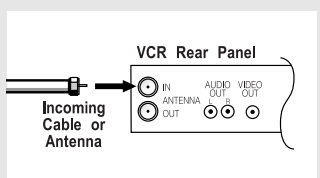
1

Unplug the cable or antenna from the back of the TV.



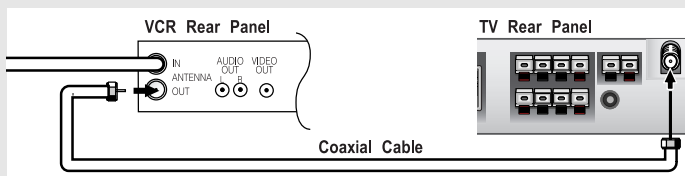
2

Connect the cable or antenna to the ANTENNA IN terminal on the back of the VCR.



3

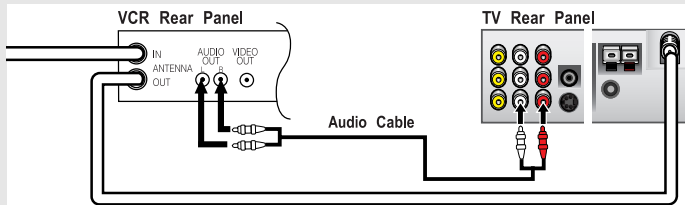
Connect a coaxial cable between the ANTENNA OUT terminal on the VCR and the antenna terminal on the TV.



A coaxial cable is usually included with a VCR. (If not, check your local electronics store).

4

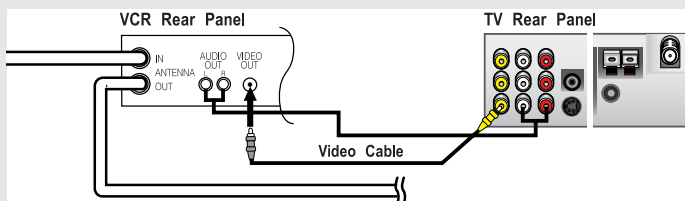
Connect a set of audio cables between the AUDIO OUT jacks on the VCR and the AUDIO jacks on the TV.



If you have a “mono” (non-stereo) VCR, use the Y-connector (not supplied) to hook up to the left and right audio input jacks of the TV. If your VCR is stereo, you must connect two cables.

5

Connect a video cable between the VIDEO OUT jack on the VCR and the VIDEO jack on the TV.



Follow the instructions in “Viewing a VCR or Camcorder Tape” to view your VCR tape.

Each external input source device has a different back panel configuration.

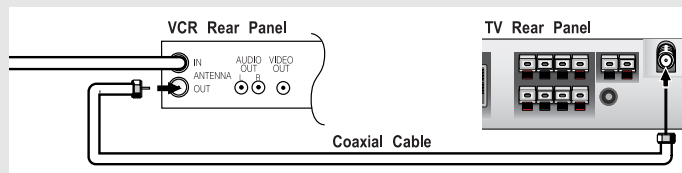
INSTALLATION

Connecting an S-VHS VCR

Your Samsung TV can be connected to an S-Video signal from an S-VHS VCR. (This connection delivers a better picture as compared to a standard VHS VCR.)

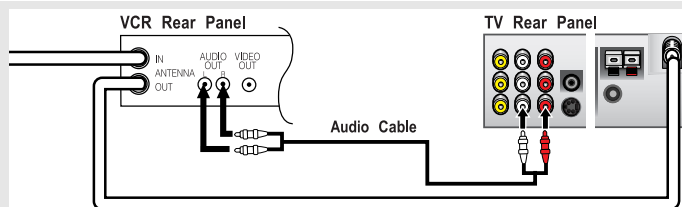
1

To begin, follow steps 1–3 in the previous section to connect the antenna or cable to your VCR and your TV.



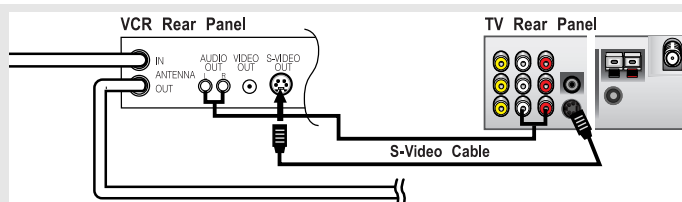
2

Connect a set of audio cables between the AUDIO OUT jacks on the VCR and the AUDIO INPUT jacks on the TV.



3

Connect an S-video cable between the S-VIDEO OUT jack on the VCR and the S-VIDEO INPUT jack on the TV.



An S-video cable is usually included with an S-VHS VCR.

(If not, check your local electronics store.)

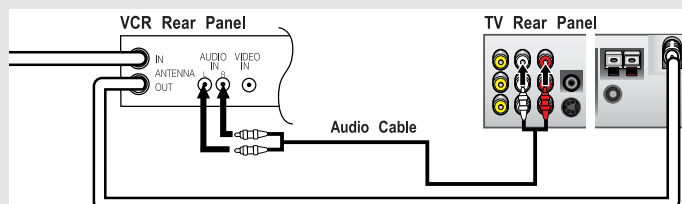
Each external input source device has a different back panel configuration.

Connecting an External Input Source

Connect the Input/AUDIO cables to the Input/AUDIO OUT jacks on the TV and the Input/AUDIO IN jacks on the VCR (Connect the cables to the jacks of the same color.)

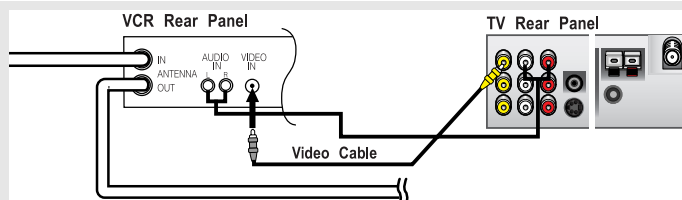
1

Connect a set of audio cables between the AUDIO IN jacks on the VCR and the AUDIO jacks on the TV.



2

Connect a video cable between the VIDEO IN jack on the VCR and the VIDEO jack on the TV.



Make sure that the output is set to TV. (See Page 33)

Each external input source device has a different back panel configuration.

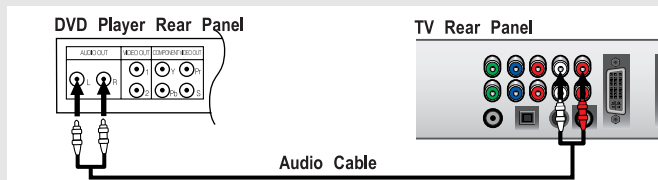
INSTALLATION

Connecting a DVD Player

The rear panel jacks on your TV make it easy to connect a DVD player to your TV.

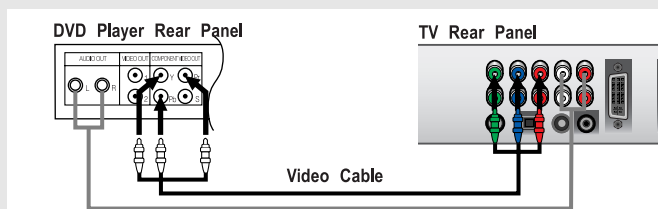
1

Connect a set of audio cables between the L, R AUDIO INPUT jacks on the TV and the AUDIO OUT jacks on the DVD player.



2

Connect a video cable between the COMPONENT1 or COMPONENT2 (Y, Pb, Pr) jacks on the TV and the Y, Pb, Pr jacks on the DVD player.



Note: For an explanation of Component video, see your DVD player owner's manual.

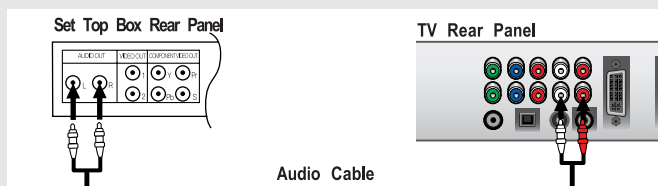
Each external input source device has a different back panel configuration.

Connecting a Digital TV Set-Top Box

The connections for a typical set-top box are shown below.

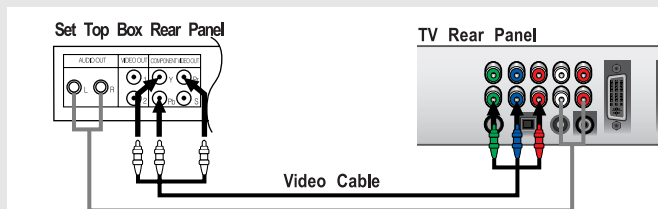
1

Connect a set of audio cables between the L, R COMPONENT1 or COMPONENT2 AUDIO INPUT jacks on the TV and the AUDIO OUT jacks on the Set-Top Box.



2

Connect a video cable between the COMPONENT1 or COMPONENT2 (Y, Pb, Pr) jacks on the TV and the Y, Pb, Pr jacks on the Set-Top Box.



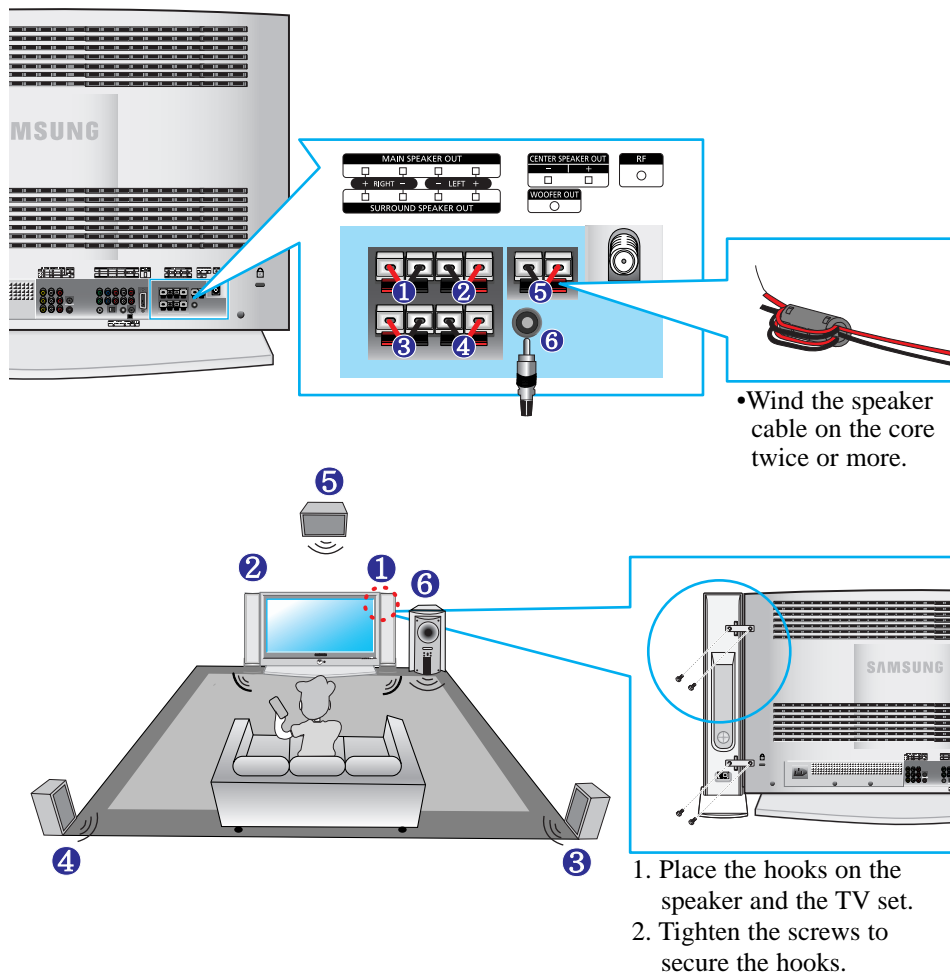
Note: For an explanation of Component video, see your Set-Top Box owner's manual.

Each external input source device has a different back panel configuration.

INSTALLATION

Connecting the Speakers

- 5.1. Channel system: 5 Channels – 2 Channels for the front (left and right),
 1 Channel for the center,
 2 for the rear (left and right)
 0.1 Channel – Subwoofer Channel



How to Connect

1. Connect the speaker cables to the Speaker OUT jacks on the TV and the IN jacks on the speakers.
2. Connect the Subwoofer OUT jack on the TV to the Subwoofer.

How to Turn the Sound On

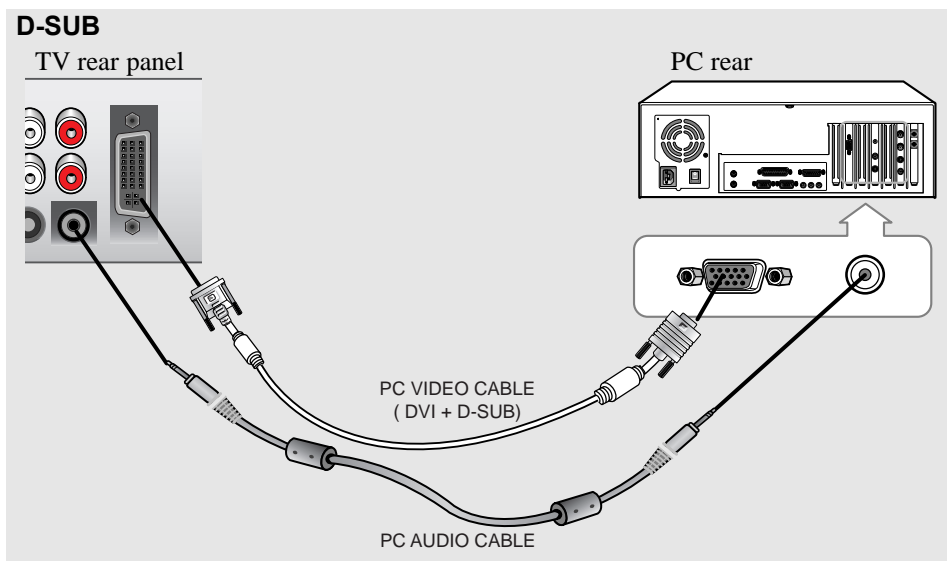
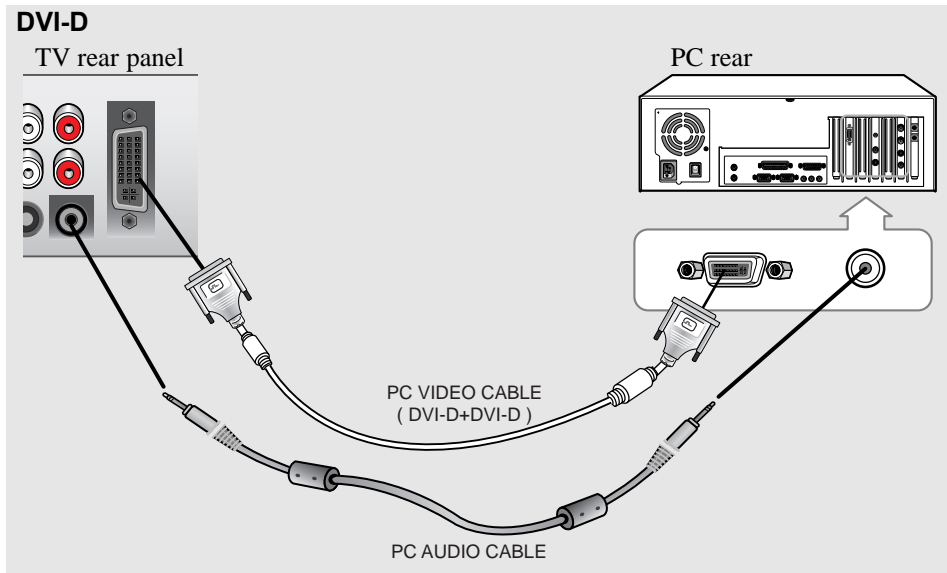
1. Turn the TV on and press the TV/Input button to select TV.
2. Press the Volume button to adjust the volume level.

- The center, rear (left and right) and the Subwoofer speakers are sold separately.
- Contact the nearest electronics store to purchase them.

INSTALLATION

Connecting a PC

Note: This figure shows the Standard Connector-jack panel. The actual configuration on your TV may be different, depending on the model.



- **PC AUDIO INPUT**

Connect these to the audio-output jacks on your PC.

- **PC VIDEO INPUT**

Connect to the video output port on your PC.

Each external input source device has a different back panel configuration.

Chapter Three

SPECIAL FEATURES

Turning the TV On and Off

Press the **POWER** button.

You can also use the Power button on the front panel.



[Note]

1. Use of the 'Power' button on the remote is possible only when the TV is in 'Power Saving' (stand-by) mode. If the TV is powered off, the remote cannot be used to turn the TV on.
2. To retain the time and or automatic alarm settings, always put the TV in stand-by mode with the remote control.

Use of the power switch on the TV will clear all time related settings.

[Benefit] This full 'power off' function is as effective as unplugging the power cable.

TV switches to stand-by mode when powered off by the remote control.



To return power () to the screen, press the remote control 'ON' or channel button (). Pressing the power button on the TV does not return power to the screen because in this case, the TV restores the last mode, which was 'Power Saving'.

Changing Channels

Using the Channel Buttons

1

Press the **CH**  /  buttons to change channels.

When you press the **CH**  /  buttons, the TV changes channels in sequence. You will see all the channels that the TV has memorized. (The TV must have memorized at least three channels.) You will not see channels that were either erased or not memorized.

Using the PRE-CH Button to select the Previous Channel



1

Press the **PRE-CH** button.
The TV will switch to the last channel viewed.

To quickly switch between two channels that are far apart, tune to one channel, then use the number button to select the second channel. Then, use the PRE-CH button to quickly alternate between them.

Adjusting the Volume

1

Press the **VOL**  /  buttons to increase or decrease the volume.


SPECIAL FEATURES

Using Mute

At any time, you can temporarily cut off the sound using the Mute button.

1

Press **MUTE** and the sound cuts off.

The word “” will appear in the lower-left corner of the screen.

2

To turn mute off, press the **MUTE** button again, or simply press the **VOL +/-** button.

Viewing the Display

The display identifies the current channel and the status of certain audio-video settings.

1

Press the **Display** button on the remote control.

The TV will display the channel, the type of sound, and the status of certain picture and sound settings.

STD 104	
Mono	
Picture Mode	: Custom
Sound Mode	: Custom
MTS	: Mono
Dolby Pro-Logic	: Off
Speaker Setting	: 5.1
Ext. Audio	: Analog
Clock	: 02 : 15 pm

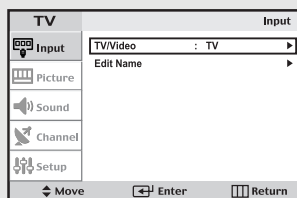
- ◀ The on-screen displays disappear after about ten seconds.
- ◀ Press the button once more or wait approximately 10 seconds and it disappears automatically.
- ◀ Allows the user to adjust the settings according to his/her preference and shows the current settings.

Viewing the Menus

1


With the power on, press the **MENU** button.

The main menu appears on the screen. It's left side has five icons: Input, Picture, Sound, Channel, Setup.




- ◀ The on-screen menus disappear from the screen after about thirty seconds.

2

Use the **UP/DOWN ▲ ▼** buttons to select one of the 5 icons. Then press **ENTER**  or **RIGHT ►** to access the icon's sub-menu.

3

Press the **MENU** button to exit.

- ◀ You can also use the **MENU**, **CHANNEL**, **VOLUME** and **TV/Video**  buttons on the control panel of the TV to make selections.

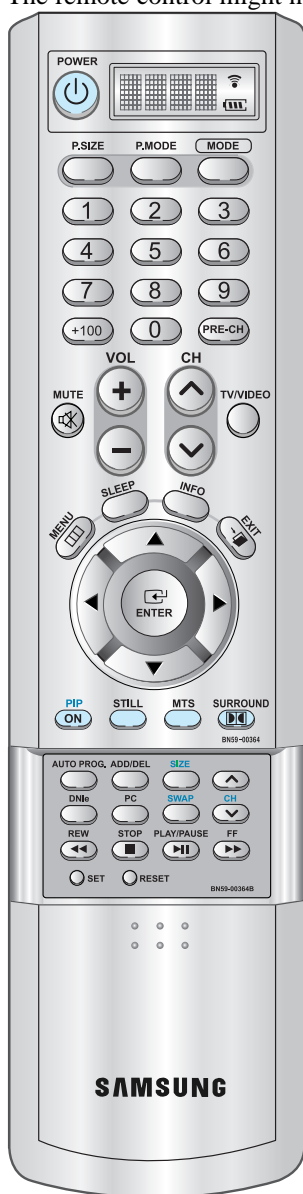
SPECIAL FEATURES

Setting Up Your Remote Control

After it has been set up properly, your remote control can operate in four different modes: TV, VCR, Cable, or DVD. Pressing the corresponding button on the remote control allows you to switch between these modes, and control whichever piece of equipment you choose.

Note

The remote control might not be compatible with all DVD Players, VCRs and Cable boxes.



Setting Up the Remote to Operate Your VCR

- 1 Turn off your VCR.
- 2 Press the MODE button and make sure that the VCR LED is illuminated.
- 3 Press the Set button on your TV's remote control.
- 4 Using the number buttons on your remote control, enter three digits of the VCR code listed on page 21 of this manual for your brand of VCR. Make sure you enter three digits of the code, even if the first digit is a "0". (If more than one code is listed, try the first one.)
- 5 Press the Power button on the remote control. Your VCR should turn on if your remote is set up correctly.

If your VCR does not turn on after set up, repeat steps 2, 3, and 4, but try one of the other codes listed for your brand of VCR. If no other codes are listed, try each VCR code, 000 through 089.

Note on Using Remote Control Modes: VCR

When your remote control is in "VCR" mode, the volume buttons still control your TV's volume.

Setting Up the Remote to Operate Your Cable Box



- 1 Turn off your cable box.
- 2 Press the MODE button and make sure that the Cable LED is illuminated.
- 3 Press the SET button on your TV's remote control.
- 4 Using the number buttons on your remote control, enter three digits of the cable box code listed on page 21 of this manual for your brand of cable box. Make sure you enter three digits of the code, even if the first digit is a "0."
If there is more than one code listed, try the first one.
- 5 Press the Power button on the remote control. Your cable box should turn on if your remote is set up correctly.

If your cable box does not turn on after set up, repeat steps 2, 3, and 4, but try one of the other codes listed for your brand of cable box. If no other codes are listed, try each code, 000 through 077.

Note on Using Remote Control Modes: Cable Box

When your remote control is in "Cable Box" mode, the volume buttons still control your TV's volume.

Setting Up the Remote to Operate Your DVD



- 1 Turn off your DVD.
- 2 Press the MODE button and make sure that the DVD LED is illuminated.
- 3 Press the SET button on your TV's remote control.
- 4 Using the number buttons on your remote control, enter three digits of the DVD code listed on page 21 of this manual for your brand of DVD. Make sure you enter three digits of the code, even if the first digit is a "0."
If there is more than one code listed, try the first one.
- 5 Press the Power button on the remote control. Your DVD should turn on if your remote is set up correctly.

If your DVD does not turn on after set up, repeat steps 2, 3, and 4, but try one of the other codes listed for your brand of DVD. If no other codes are listed, try each code, 000 through 008.

Note on Using Remote Control Modes: DVD

When your remote control is in "DVD" mode, the volume buttons still control your TV's volume.

Remote Control Codes

VCR Codes

Admiral	015,088	KLH	082	RCA	009,014,016,017,037,044,046,063,078
Aiwa	024	LG	001,002,007	Samsung	000,016,022,031,041,051
Audio Dynamics	022,025	Lloyd	024	Sansui	025
Bell&Howell	011	Logik	040	Sanyo	011,021
Broksonic	019	LXI	024	Scott	022,050,058,077
Candle	016,018,022,054,055,061	Magnavox	017,038,062,065	Sears	011,014,018,021,027,028,044,052,057
Canon	017,062	Marantz	011,017,023,025,038,039,055,070	Sharp	015,036,048,054
Citizen	016,018,022,054,055,061	Marta		Shintom	026,035,040,064
Colortyme	023	MEI		Signature	024
Craig	016,021	Memorex		Sony	026,035,047
Curtis-Mathes	009,016,017,023,024,055,062,073,076	MGA		Sylvania	017,024,038,062,065
Daewoo	003,004,005,006,007,008,022,054,085	Midland		Symphonic	024
DBX		Minota		Tandy	011,024
Dimensia	009	Mitsubishi		Tashiko	
Dynatech	024	Montgomery ward		Tatung	039
Electrohome	036	MTC	016,024	Teac	024,039,078
Emerson	017,018,019,022,024,029,032,036,043,050,051,056,058,066,071,074,076,077,079	Multitech	016,024,040,041	Technics	017
		NEC	011,023,025,039,055,070,073	Temika	
Fisher	011,021,027,028,052,057,067	Optimus	015	TMK	076
Funai	024	Panasonic	017,062,084,086	Toshiba	014,022,028,057,058
GE		Pentax	014,044	Totevision	016,018
Go Video	016	Pentex Reserch+	055	Unitech	
Harman Kardon	023	Philco	017,038,062,065	Vector Research	
Hitach	014,024,044,045	Philips	017,038	Victor	
Instant Replay	017	Pioneer	014,025,042,059	Video Concepts	
JC Penney	011,014,016,017,023,025,039,044,060,062	Portland	053,054,061	Videosonic	
JCL	011,017,023,025,039,055	ProScan	009	Wards	
JVC		Quartz	011	Yamaha	
kenwood	011,023,025,039,055	Quasar	017,053	Zenith	
		Radio Shack/Realistics	011,015,017,018,021,024,028,036,052,062		

Cable Box Codes

Anvision	015,016	NSC	017	Signature	054
Cable star	015,016	Oak	024,046	Sprucer	035
Eagle	015,016	Osk Sigma	024	Starcom	054
Eastrm Int.		Panasonic	011,035,047,069	Stargate 2000	066
General Instrument	054	Philips	015,016,027,029,034,036,037,040,041,048,049	Sylvania	019,067
GI	012,013,023,031,032,033,038,044,075,076,077	Pioneer	026,028,052	Texscan	019,067
		Randtek	015,016	Tocom	025,029,057,058,063
Hamlin	011,012,020,021,042,056	RCA	008,035,074	Unika	039,040,049
Hitachi	045,051,054	Regal	011,020,021	Universal	059,060
Jerrold	012,013,023,031,032,033,038,044,054,070,073	Regency	010,041	Viewstar	015,016,027,029,034,036,037,040,041,048,049
Macom	045,051	SA		Warner Amex	052
Magnavox	015,016,027,029,034,036,037,040,041,048,049	Samsung	000,011,030,052,071,072	Zenith	022,050,065,069

DVD Codes

Philips	007
Proscan	008
RCA	008
Toshiba	002
Panasonic	006
Sony	004
Samsung	000

Chapter Four

OPERATION

Plug & Play Feature

When the TV is initially powered On, two basic customer settings proceed automatically and subsequently: Setting Auto program, Clock.

1

Press the **POWER** button on the remote control.

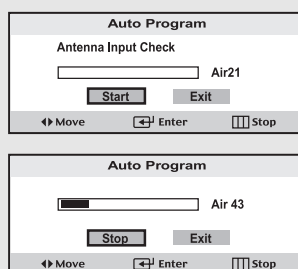
The message "Plug & Play" is displayed.

Plug & Play

2

Press the **ENTER** button.

The TV will begin memorizing all of the available channels.

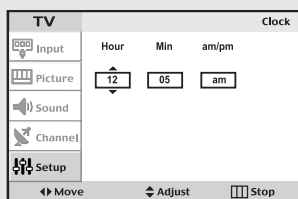


3

Press the **LEFT/RIGHT** buttons to move to the hour or minute.

Set the hour or minute by pressing the **UP/DOWN** buttons.

(refer to "Setting and Displaying the Current Time" on page 51.)



4

The message "Enjoy your watching." is displayed.

Enjoy your watching

OPERATION

Memorizing the Channels

Your TV can memorize and store all of the available channels for both “off-air” (antenna) and cable channels. After the available channels are memorized, use the CH \wedge and CH \vee buttons to scan through the channels. This eliminates the need to change channels by entering the channel digits. There are three steps for memorizing channels: selecting a broadcast source, memorizing the channels (automatic) and adding and deleting channels (manual).

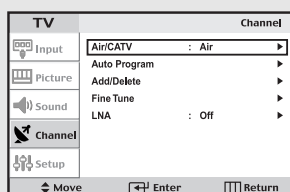
Selecting the Video Signal-source

Before your television can begin memorizing the available channels, you must specify the type of signal source that is connected to the TV (i.e., an antenna or a cable system).

1

Press the **MENU** button to display the menu.

Press the **UP/DOWN \blacktriangle \blacktriangledown** buttons to select “Channel”, then press the **ENTER** $\boxed{\rightarrow}$ button.

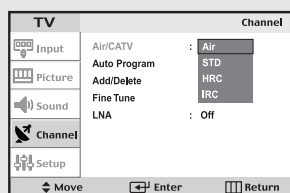


2

Press the **UP/DOWN \blacktriangle \blacktriangledown** buttons to select “Air/CATV”, then press the **ENTER** $\boxed{\rightarrow}$ button.

Repeatedly press the **UP/DOWN \blacktriangle \blacktriangledown** buttons to cycle through these choices: Air (antenna), STD, HRC or IRC (all cable TV).

Press the **UP/DOWN \blacktriangle \blacktriangledown** buttons to select the Video signal source, then press the **ENTER** $\boxed{\rightarrow}$ button.



Note : STD, HRC and IRC identify various types of cable TV systems. Contact your local cable company to identify the type of cable system that exists in your particular area.

At this point the signal source has been selected.
Proceed to “Storing Channels in Memory” (next page).

OPERATION

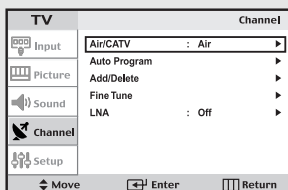
Storing Channels in Memory (Automatic Method)

1

First, select the correct signal source (Air, STD, HRC, IRC). See steps 1~2 on previous page.

Press the **MENU** button.

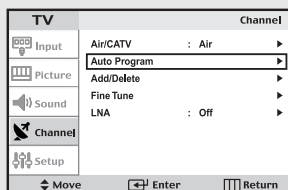
Press the **UP/DOWN ▲ ▼** buttons to select "Channel", then press the **ENTER** button.



2

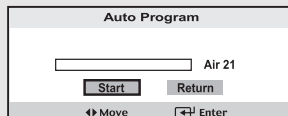
Press the **UP/DOWN ▲ ▼** buttons to select "Auto program".

Press the **ENTER** button.



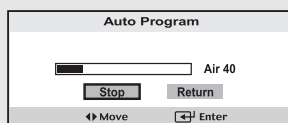
3

Press the **LEFT/RIGHT ◀ ▶** buttons to select "Start". Press the **ENTER** button. The TV will begin memorizing all of the available channels.



4

After all the available channels are stored, the Auto program menu reappears. Press the **MENU** button to exit.



◀ The TV automatically cycles through all of the available channels and stores them in memory. This takes about one to two minutes.

Press **ENTER** at any time to interrupt the memorization process and return to the CHANNEL menu.

To select channels over 100,

Ex) Press **<100> → <0> → <8>** to select cable channel 108.

OPERATION

Adding and Erasing Channels (Manual Method)

1

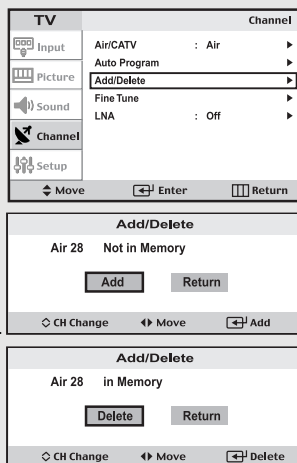
Use the number buttons to directly select the channel that will be Add or Delete.
Press the **MENU** button to display the menu.

Press the **UP/DOWN ▲ ▼** buttons to select "Channel", then press the **ENTER** button.

Press the **UP/DOWN ▲ ▼** buttons to select "Add/Delete".
Press the **ENTER** button.

Press the **ENTER** button to select "Add and Delete".

Press the **MENU** button to exit.



2

Use the number buttons to directly select the channel that will be added or erased.

Press the **ADD/ERASE** button.

Repeatedly pressing this button will alternate between "Added" and "Erased."

You can view any channel (including an erased channel) by using the number buttons on the remote control.

To Select TV/Input

Use to select TV or other external input source connected to the TV.

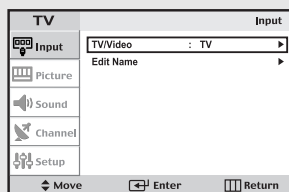
Use to select the screen of your choice.

1

Press the **MENU** button to display the on-screen menu.

Press the **UP/DOWN ▲ ▼** buttons to select "Input".

Press the **ENTER** button.



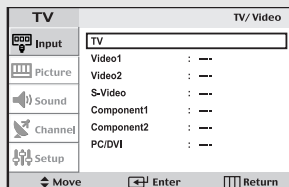
2

Press the **ENTER** button to select "TV", then press the **ENTER** button.

3

Press the **UP/DOWN ▲ ▼** buttons to select the input source, then press the **ENTER** button.

Press the **MENU** button to exit.



OPERATION

To Edit the Input Source Name

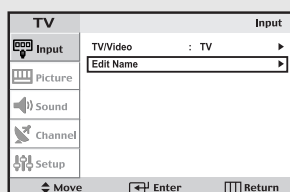
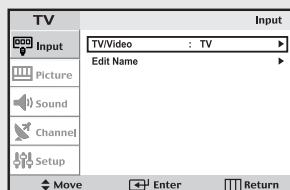
Name the input device connected to the input jacks to make your input source selection easier.

1

Press the **MENU** button to display the on-screen menu.

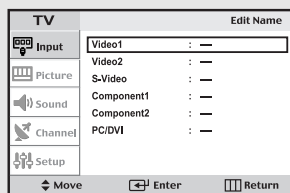
Press the **UP/DOWN ▲ ▼** buttons to select "Input", then press the **ENTER** button.

Press the **UP/DOWN ▲ ▼** buttons to select "Edit Name", then press the **ENTER** button.



2

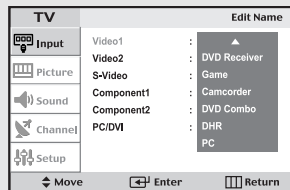
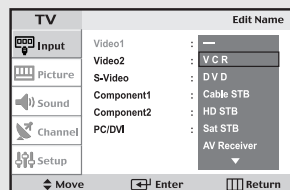
Press the **UP/DOWN ▲ ▼** buttons to select "Video1", "Video2", "S-Video", "Component1", "Component2" or "PC/DVI", then press the **ENTER** button.



3

Press the **UP/DOWN ▲ ▼** buttons repeatedly until the correct VCR appears.

After the VCR is entered, press the **ENTER** button.



OPERATION

Using Automatic Picture Settings

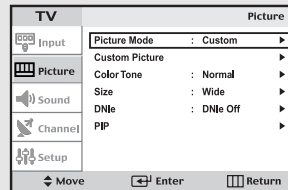
Your TV has four automatic picture settings (“Custom”, “Dynamic”, “Standard”, and “Movie”) that are preset at the factory. You can activate either Custom, Dynamic, Standard, or Movie by pressing P.MODE (or by making a selection from the menu). Or, you can select “Custom” which automatically recalls your personalized picture settings.

1

Press the **MENU** button to display the menu.

Press the **UP/DOWN ▲ ▼** buttons to select “Picture”, then press the **ENTER** button.

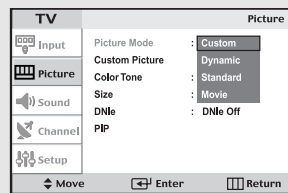
Press the **ENTER** button.



2

Press the **UP/DOWN ▲ ▼** buttons to select the “Dynamic”, “Standard”, “Movie” or “Custom” picture setting.

Press the **ENTER** button. Press **MENU** twice to exit.



Alternate method:

Simply press the **P.MODE** button on the remote control to select one of the standard picture settings.

- Choose *Dynamic* to increase the clarity and sharpness of the picture.
- Choose *Standard* for the standard factory settings.
- Choose *Movie* when viewing the movies.
- Choose *Custom* if you want to adjust the settings according to personal preference (see “Customizing the Picture, page 28).

OPERATION

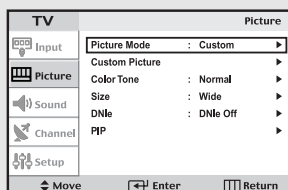
Customizing the Picture

You can use the on-screen menus to change the contrast, brightness, sharpness, color and tint according to personal preference.
(Alternatively, you can use one of the “automatic” settings. See the previous page.)

1

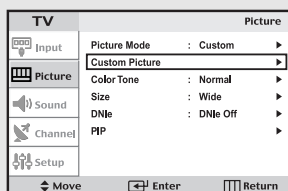
Press the **MENU** button to display the menu.

Press the **UP/DOWN ▲ ▼** buttons to select “Picture”, then press the **ENTER** button.



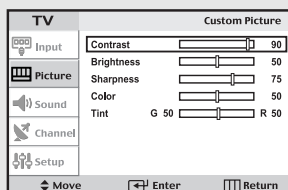
2

Press the **UP/DOWN ▲ ▼** buttons to select “Custom Picture”, then press the **ENTER** button.



3

Press the **ENTER** button to select a particular item.

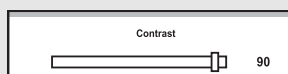


◀ Choose from the following Color Tone selections: “Cool 2”, “Cool 1”, “Normal”, “Warm 1”, “Warm 2” according to personal preference.

4

Press the **LEFT/RIGHT ◀ ▶** buttons to decrease or increase the value of a particular item.
For example, if you select “Contrast”, pressing **ENTER** increases it.

Press the **MENU** button to exit.



Press the **UP/DOWN ▲ ▼** buttons to select Contrast, Brightness, Sharpness, Color or Tint.

OPERATION

Using Automatic Sound Settings

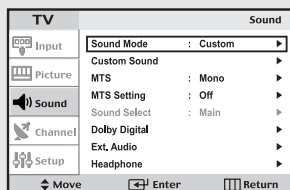
Your TV has five automatic sound settings (“Custom”, “Standard”, “Music”, “Movie” and “Speech”) that are preset at the factory. You can select “Sound Mode”, which automatically recalls your personalized sound settings.

1

Press the **MENU** button to display the menu.

Press the **UP/DOWN ▲ ▼** buttons to select “Sound”, then press the **ENTER** button.

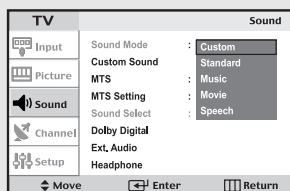
Press the **UP/DOWN ▲ ▼** buttons to select “Sound Mode”, then press the **ENTER** button.



2

Press the **UP/DOWN ▲ ▼** buttons repeatedly to select the “Standard”, “Music”, “Movie”, “Speech” or “Custom” sound settings.

Press the **ENTER** button.



- Choose *Standard* for the standard factory settings.
- Choose *Music* when watching music videos or concerts.
- Choose *Movie* when watching movies.
- Choose *Speech* when watching a show that is mostly dialogue (i.e., news).
- Choose *Custom* to recall your personalized settings.

OPERATION

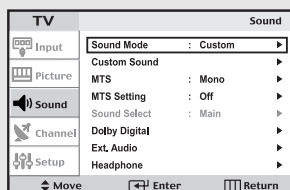
Customizing the Sound

The sound settings can be adjusted to suit your personal preference.
(Alternatively, you can use one of the “automatic” settings. See the previous page.)

1

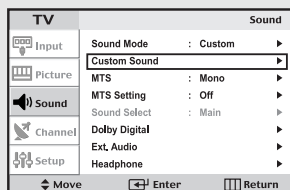
Press the **MENU** button to display the menu.

Press the **UP/DOWN ▲▼** buttons to select “Sound”, then press the **ENTER** button.



2

Press the **UP/DOWN ▲▼** buttons to select “Custom Sound”, then press the **ENTER** button.

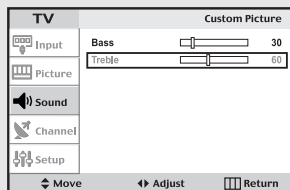


3

Press the **UP/DOWN ▲▼** buttons to select a particular item to be changed.

Press the **LEFT/RIGHT ◀▶** buttons to increase or decrease the value of a particular item.

Press the **MENU** button to exit.



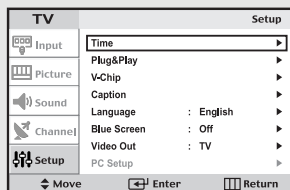
OPERATION

Selecting a Menu Language

1

Press the **MENU** button to display the menu.

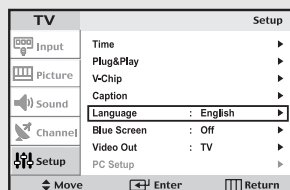
Press the **UP/DOWN ▲ ▼** buttons to select "Setup", then press the **ENTER** button.



2

Press the **UP/DOWN ▲ ▼** buttons to select Language.

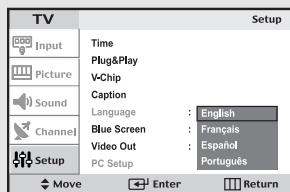
Press the **ENTER** button.



3

Press the **UP/DOWN ▲ ▼** buttons to select "English", "Français", "Español", or "Português".

Press the **MENU** button to exit.



OPERATION

Setting the Blue Screen Mode

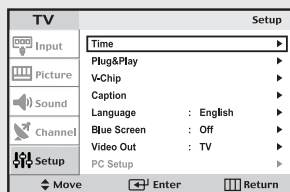
If no signal is being received or the signal is very weak, a blue screen automatically replaces the noisy picture background.

If you wish to continue viewing the poor picture, you must set the “Blue screen” mode to “Off”.

1

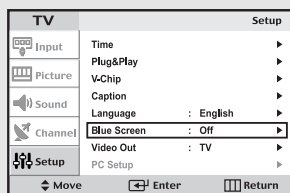
Press the **MENU** button to display the menu.

Press the **UP/DOWN ▲ ▼** buttons to select “Setup”, then press the **ENTER** button.



2

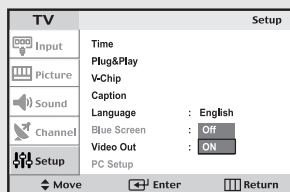
Press the **UP/DOWN ▲ ▼** buttons to select “Blue Screen”, then press the **ENTER** button.



3

Press the **UP/DOWN ▲ ▼** buttons to set Blue Screen “On”.

Press the **MENU** button to exit.



◀ Pressing the **UP/DOWN ▲ ▼** buttons will alternate between “On” and “Off”.

OPERATION

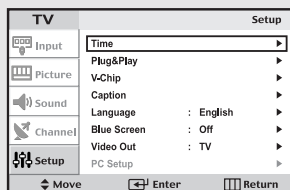
To Select an External Output Device

You can select one from TV, Input1 (Component1), Input2 (Component2), and S-Video to send the signals to a device connected to the output jacks.

1

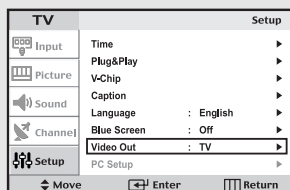
Press the **MENU** button to display the menu.

Press the **UP/DOWN ▲ ▼** buttons to select "Setup", then press the **ENTER** button.



2

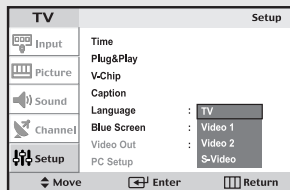
Press the **UP/DOWN ▲ ▼** buttons to select "Video Out", then press the **ENTER** button.



3

Press the **UP/DOWN ▲ ▼** buttons to select the signal source.

Press the **MENU** button to exit.



- If a VCR is connected to the output jacks, you can record the signals coming from the source of your choice.
- If the output is set to TV and the PIP window function is on, you can select the audio from the PIP window. The output audio is automatically changed to the audio from the PIP window.

OPERATION

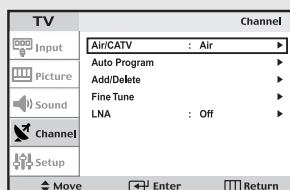
LNA (Low Noise Amplifier)

If the TV is operating in a weak-signal area, sometimes the LNA function can improve the reception (a low-noise preamplifier boosts the incoming signal).

1

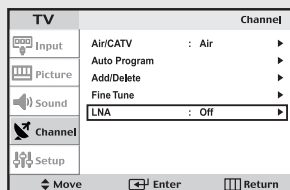
Press the **MENU** button to display the menu.

Press the **UP/DOWN ▲▼** buttons to select "Channel", then press the **ENTER** button.



2

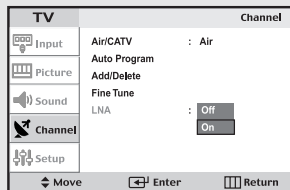
Press the **UP/DOWN ▲▼** buttons to select "LNA", then press the **ENTER** button.



3

Press the **UP/DOWN ▲▼** buttons to set LNA "On".

Press the **MENU** button to exit.



◀ Pressing **UP/DOWN ▲▼** will alternate between "On" and "Off".

OPERATION

Fine Tuning Channels

Use fine tuning to manually adjust a particular channel for optimal reception.

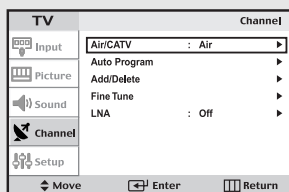
1

Select the appropriate channel.

2

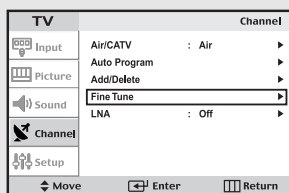
Press the **MENU** button to display the menu.

Press the **UP/DOWN ▲ ▼** buttons to select "Channel", then press the **ENTER** button.



3

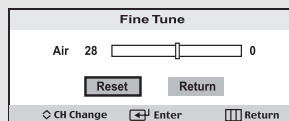
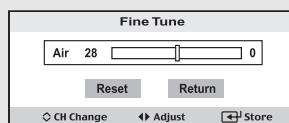
Press the **UP/DOWN ▲ ▼** buttons to select "Fine Tune", then press the **ENTER** button.



4

Press the **LEFT/RIGHT ◀ ▶** buttons to adjust the "Fine Tuning" and Press the **ENTER** button.

Press the **MENU** button to exit.



◀ If you do not store the channel in memory, adjustments to the settings are applied before you change the channel but are not saved. Therefore they return to the original settings once you move to another channel. User-adjusted channels are marked with an asterisk "*" on the right-hand side of the channel number in the channel banner.

OPERATION

Viewing Picture-in-Picture

This product has one tuner built-in, which does not allow PIP to function in the same mode. Please see 'PIP Settings' below for details.

You can use the PIP feature to simultaneously watch two video sources.

Note: While V-Chip is in operation, the PIP function cannot be used.

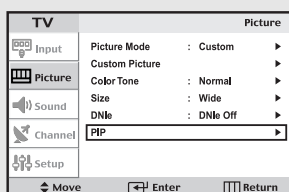
Activating Picture-in-Picture

1

Press the **MENU** button to display the menu.

Press the **UP/DOWN ▲ ▼** buttons to select "Picture", then press the **ENTER** button.

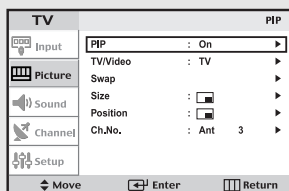
Press the **UP/DOWN ▲ ▼** buttons to select "PIP", then press the **ENTER** button.



◀ Quick way to access the PIP menu:
Simply press the PIP button on the remote control.

2

Press the **ENTER** button to select PIP "On".



◀ If you turn the TV off while watching and turn it on again, the PIP window will disappear.

3

Press the **MENU** button to exit.

Note: Picture-in-Picture does not function when the V-Chip is active.

PIP Settings

Main Picture \ Sub Picture	PC Analog	PC DVI	TV Tuner1	TV Tuner2	AV1	AV2	S-VHS	COMP1	COMP2
PC Analog	X	X	0	0	0	0	0	0	0
PC DVI	X	X	0	0	0	0	0	0	0
TV Tuner1	X	X	X	0	0	0	0	0	0
TV Tuner2	X	X	0	X	0	0	0	0	0
AV1	X	X	0	0	X	0	0	0	0
AV2	X	X	0	0	0	X	0	0	0
S-VHS	X	X	0	0	0	0	X	0	0
COMP1	X	X	0	0	0	0	0	X	X
COMP2	X	X	0	0	0	0	0	X	X

OPERATION

Swapping the Contents of the PIP and Main image

When you press the **SWAP** button, the image in the PIP window will appear on the main screen, and vice versa.



◀ While the main screen is in PC mode, it does not work.

Changing the PIP Channel

Press the PIP **CH** \wedge/\vee button to change the channel that appears in the PIP window.

Changing the Size of the PIP Window

Press the **SIZE** button to alternate between a smaller and larger PIP window.

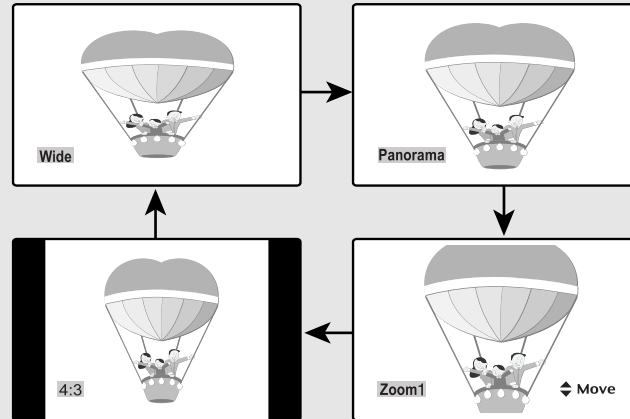
- You cannot select the PIP window function when the TV set is in energy saving mode. You will see the “Check the cable connection” or “Out of input range” message on the screen in PC mode.
- Press the  button once more to deselect PIP mode.
- You may notice that the picture in the PIP window becomes slightly unnatural when you set the main screen to game or karaoke mode. Switch the main screen and the PIP window for normal viewing.
- You can adjust picture position only by using the  size menu.

OPERATION

Changing the Screen Size

1

Press the **P.SIZE** button to change the screen size.



- **Wide** : Sets the picture to 16:9 wide mode.
- **Panorama** : Use this mode for the wide aspect ratio of a panoramic picture.
(However, it does not work in 720p and 1080i modes.)
- **Zoom 1,2** : Magnifies the size of the picture on screen.
- **4:3** : Sets the picture to 4:3 normal mode.
This is the standard TV screen size.

Freezing the Picture

1

Press the **STILL** button to freeze a moving picture.

- Not available if V-Chip is turned on.
- Normal sound will still be heard.

Press again it cancel.

OPERATION

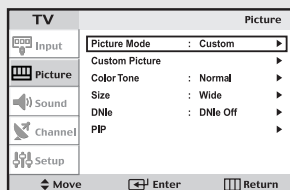
Adjusting the Background Color

You can change the color of the entire screen according to your preference.

1

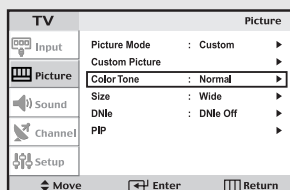
Press the **MENU** button to display the menu.

Press the **UP/DOWN ▲▼** buttons to select "Picture", then press the **ENTER** button.



2

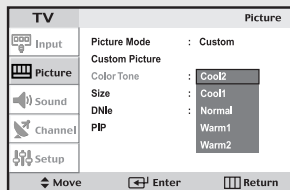
Press the **UP/DOWN ▲▼** buttons to select "Color Tone", then press the **ENTER** button.



3

Press the **UP/DOWN ▲▼** buttons to select Color Tone.

Press the **MENU** button to exit.



◀ Choose from the following Color Tone settings: "Cool 2", "Cool 1", "Normal", "Warm 1", "Warm 2" according to personal preference.

OPERATION

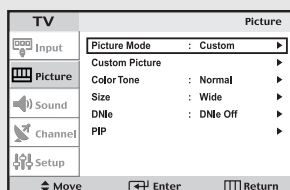
Setting the DNle

Samsung's New Technology brings you more detailed images with contrast, white enhancement and 3D noise reduction.

1

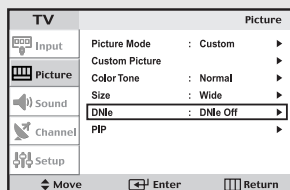
Press the **MENU** button to display the menu.

Press the **UP/DOWN ▲▼** buttons to select "Picture", then press the **ENTER** button.



2

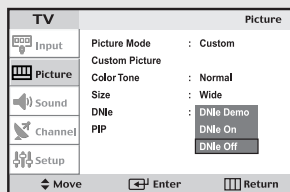
Press the **UP/DOWN ▲▼** buttons to select "DNle", then press the **ENTER** button.



3

Press the **UP/DOWN ▲▼** buttons to select DNle items.

Press the **MENU** button to exit.



- **DNle Demo:** The screen shows the improved image on the left-hand side and the original image on the right-hand side.
- **DNle On:** Improved picture mode demonstrated by DNle Demo is activated.
- **DNle Off:** The mode is deactivated and the screen returns to its original condition.

OPERATION

To Enjoy Dolby Digital Sound

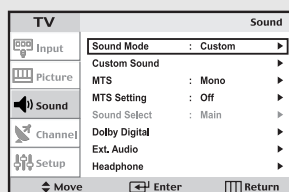
Dolby Digital is a surround sound technology that reproduces sound using multiple separate channels. Often called the 5.1 channel system, it consists of five channels that have the 20 – 20,000Hz bandwidth - two front channels (left and right), one central channel, and two rear channels (left and right); and the 0.1 channel, or the subwoofer channel, that has the 20 – 100Hz (bass effect).

Turning the Dolby Pro-Logic II On

1

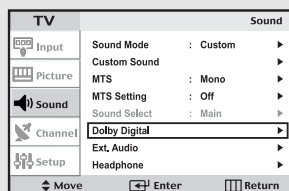
Press the **MENU** button to display the menu.

Press the **UP/DOWN ▲▼** buttons to select “Sound”, then press the **ENTER** button.



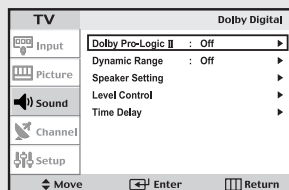
2

Press the **UP/DOWN ▲▼** buttons to select “Dolby Digital”, then press the **ENTER** button.



3

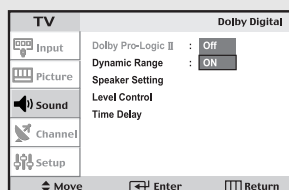
Press the **UP/DOWN ▲▼** buttons to select “Dolby Pro-Logic II”, then press the **ENTER** button.



4

Press the **UP/DOWN ▲▼** buttons to select “ON”, then press the **ENTER** button.

Press the **MENU** button to exit.



- Turn the Dolby ProLogic II on while the TV is receiving mono or stereo signals to enjoy the 5.1-channel Dolby surround sound.

OPERATION

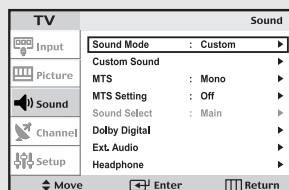
To Enjoy Dolby Digital Sound

Turning the Dynamic Range On

1

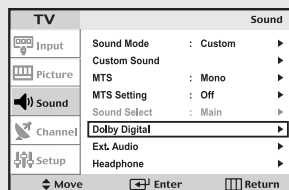
Press the **MENU** button to display the menu.

Press the **UP/DOWN ▲▼** buttons to select “Sound”, then press the **ENTER** button.



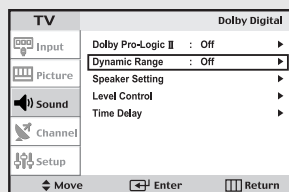
2

Press the **UP/DOWN ▲▼** buttons to select “Dolby Digital”, then press the **ENTER** button.



3

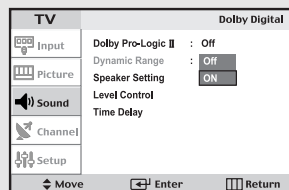
Press the **UP/DOWN ▲▼** buttons to select “Dynamic Range”, then press the **ENTER** button.



4

Press the **UP/DOWN ▲▼** buttons to select “ON”, then press the **ENTER** button.

Press the **MENU** button to exit.



- Reduces the difference between the high and low volume. Suitable for nighttime listening.

OPERATION

Speaker Settings

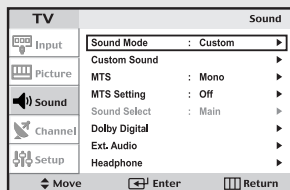
Adjusts the output level of each speaker connected to optimize the sound quality.

Speaker

1

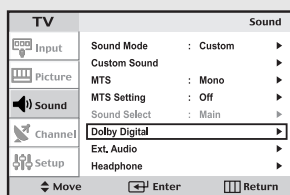
Press the **MENU** button to display the menu.

Press the **UP/DOWN ▲▼** buttons to select “Sound”, then press the **ENTER** button.



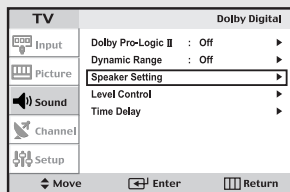
2

Press the **UP/DOWN ▲▼** buttons to select “Dolby Digital”, then press the **ENTER** button.



3

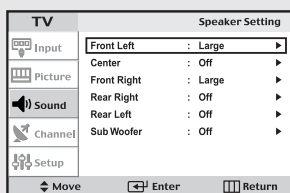
Press the **UP/DOWN ▲▼** buttons to select “Speaker Setting”, then press the **ENTER** button.



4

Press the **UP/DOWN ▲▼** buttons to select “Front Left”, then press the **ENTER** button.

Press the **MENU** button to exit.



- Choose your left and right front speakers among the small and large speakers and select On/Off for the center, the left and right rear speakers and the subwoofer.
- When the Dolby ProLogic II is on: Turn the subwoofer on and choose the small speakers as your left and right front speakers to hear the bass sounds.
- If the speakers are not connected yet, turn the speaker control off to hear the “Down-Mixed” sound through the front speakers.

OPERATION

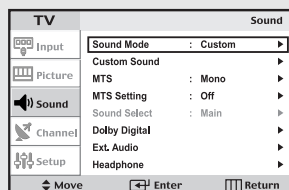
To Enjoy Dolby Digital Sound

Level

1

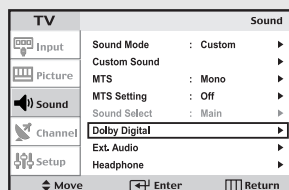
Press the **MENU** button to display the menu.

Press the **UP/DOWN ▲ ▼** buttons to select “Sound”, then press the **ENTER** button.



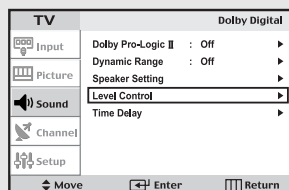
2

Press the **UP/DOWN ▲ ▼** buttons to select “Dolby Digital”, then press the **ENTER** button.



3

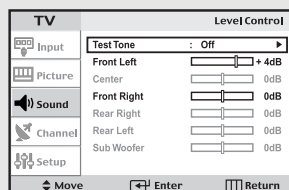
Press the **UP/DOWN ▲ ▼** buttons to select “Level Control”, then press the **ENTER** button.



4

Press the **UP/DOWN ▲ ▼** buttons to select “Test Tone”, then press the **ENTER** button.

Press the **MENU** button to exit.



- You can choose On/Off for a test. The output levels of the left and right front speakers, the center speaker and the left and right rear speakers are adjustable within the range of $-10 \sim +10\text{dB}$.
- Use to adjust the connection settings and output levels for each speaker.

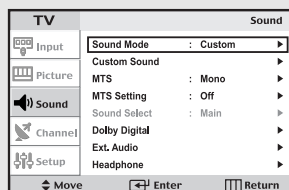
OPERATION

Time Delay

1

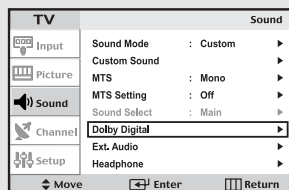
Press the **MENU** button to display the menu.

Press the **UP/DOWN ▲ ▼** buttons to select "Sound", then press the **ENTER** button.



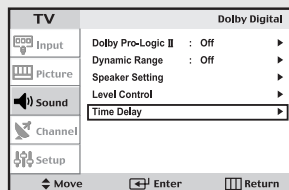
2

Press the **UP/DOWN ▲ ▼** buttons to select "Dolby Digital", then press the **ENTER** button.



3

Press the **UP/DOWN ▲ ▼** buttons to select "Time Delay", then press the **ENTER** button.

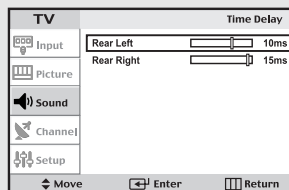


4

Press the **UP/DOWN ▲ ▼** buttons to select "Rear Left" or "Rear Right", then press the **ENTER** button.

Press the **LEFT/RIGHT ◀ ▶** buttons to adjust "Time Delay".

Press the **MENU** button to exit.



- For the best quality 5.1-channel surround sound reproduction, place the speakers so that the distance between the speakers and the distance between you and the speakers are the same. The sound coming out of the speakers does not reach the listener at the same time; the timing varies depending on the location of the speakers. This gap is adjustable by changing the delay time of the rear speakers.

OPERATION

To Enjoy Dolby Digital Sound

TRADEMARK & LABEL LICENSE NOTICE



Manufactured under license from Digital Theater Systems, Inc. US Pat. No. 5,451,942, 5, 956, 674, 5, 974, 380, 5, 978, 762 and other world-wide patents issued and pending. “DTS” and “DTS Digital Surround” are registered trademarks of Digital Theater Systems, Inc. Copyright 1996, 2000 Digital Theater System, Inc. All Rights Reserved.



Manufactured under license from Dolby Laboratories. “Dolby”, “Pro Logic”, and the double-D symbol are trademarks of Dolby Laboratories.

Ideal Speaker Placement

Front Speakers

Place the speakers so that the tweeters of the front speakers are at the same height as the listener’s ears and at the 45-degree angle from where the listener is seated.

Center Speaker

Although, ideally, it should be at the same height as the front speakers, you can also place it on or below the TV set.

Rear Speakers

Place the speakers behind the listener at a certain distance away so that they are placed 23.6 inch – 35.4 inch higher than the listener’s ears and face downwards. If you do not have enough space in the room and have to sit with your back close to the wall, place the left and right rear speakers so that they face each other.

Subwoofer Speaker

The subwoofer speaker does not require special attention in its placement. Place the speaker anywhere you like.

OPERATION

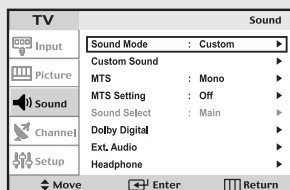
Changing the STEREO Settings

If you live in an area that has poor reception (due to weak frequency), you may hear noise and experience poor sound quality during the channel selection. Set the stereo setting to Off to eliminate the noise. Select Off and set the MTS setting to Mono.

1

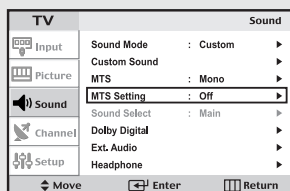
Press the **MENU** button to display the menu.

Press the **UP/DOWN ▲ ▼** buttons to select "Sound", then press the **ENTER** button.



2

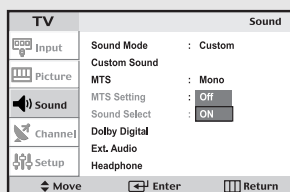
Press the **UP/DOWN ▲ ▼** buttons to select "MTS Setting", then press the **ENTER** button.



3

Press the **UP/DOWN ▲ ▼** buttons to select "ON", then press the **ENTER** button.

Press the **MENU** button to exit.



- If the sound quality is poor while you are watching a program broadcast in stereo, press the MTS button and select "Mono."
- You cannot use the bilingual function while you are watching a program in mono.
- If you set the stereo setting to Off and change the channel, the setting remains Mono regardless of the properties of the signals sent from the broadcaster.
- Press the MTS button to switch between Mono and Stereo.
(Please note that it works only when the broadcast is done in stereo.)

OPERATION

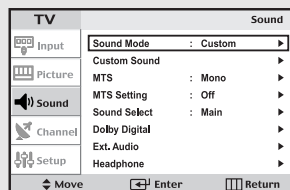
Selecting the Main or Sub Sound

You can select either Main or Sub when PIP is On.

1

Press the **MENU** button to display the menu.

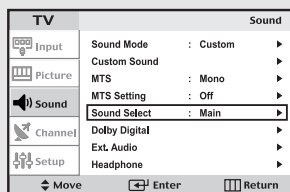
Press the **UP/DOWN ▲ ▼** buttons to select "Sound", then press the **ENTER** button.



2

Press the **UP/DOWN ▲ ▼** buttons to select "Sound Select".

Press the **ENTER** button.

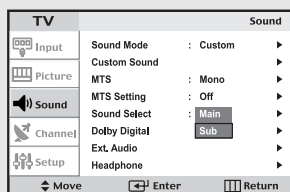


3

Press the **ENTER** button to select "Main" or "Sub".

Select "Main" to hear the main TV sound and select "Sub" to hear the PIP window sound.

Press the **MENU** button to exit.



◀Note : Sound Select can also be used to select the Main or Sub sound over the speakers.

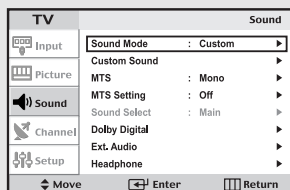
OPERATION

To Select an External Input Device

1

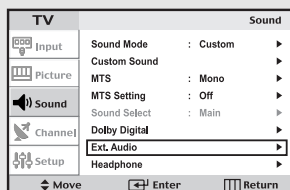
Press the **MENU** button to display the menu.

Press the **UP/DOWN ▲ ▼** buttons to select "Sound", then press the **ENTER** button.



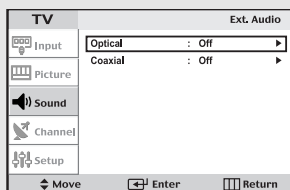
2

Press the **UP/DOWN ▲ ▼** buttons to select "Ext.Audio", then press the **ENTER** button.



3

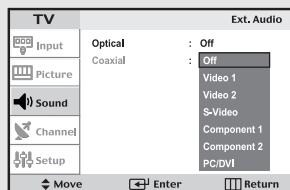
Press the **UP/DOWN ▲ ▼** buttons to select "Optical" or "Coaxial" then press the **ENTER** button.



4

Press the **UP/DOWN ▲ ▼** buttons to select then press the **ENTER** button.

Press the **MENU** button to exit.



- Optical cable: Changes electric pulses into optical signals for transmission. This transmission system transmits the digital audio signals in the S/PDIF format, in which the glass conductor transmits the signals in the form of light.
- Coaxial cable: Uses copper wires to transmit the digital signals.

OPERATION

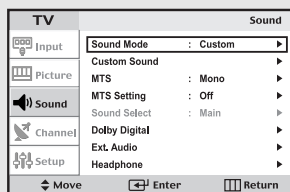
Adjusting the Headphone Sound

The headphone option is especially useful when simultaneously watching the main screen and the PIP window.

1

Press the **MENU** button to display the menu.

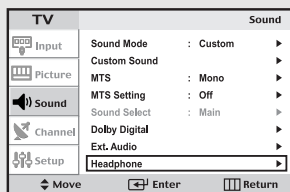
Press the **UP/DOWN ▲ ▼** buttons to select "Sound", then press the **ENTER** button



◀Note : Headphones must be purchased separately.

2

Press the **UP/DOWN ▲ ▼** buttons to select "Headphone" and press the **ENTER** button.

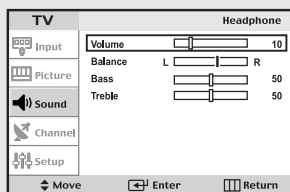


3

Press the **UP/DOWN ▲ ▼** buttons to select the particular item to be changed.

Press the **LEFT/RIGHT ◀ ▶** buttons to decrease or increase the value of a particular item.

Press the **MENU** button to exit.



◀Note : When you want to listen to TV with headphones only, press the MUTE or VOL - button on the remote control to set the TV speaker volume to zero(0).

OPERATION

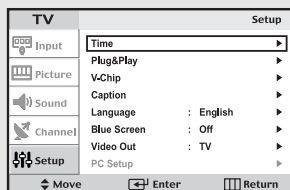
Setting the Clock

Setting the clock is necessary in order to use the various timer features of the TV. Also, you can check the time while watching the TV. (Just press DISPLAY.)

1

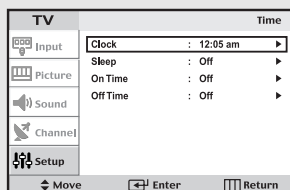
Press the **MENU** button to display the on-screen menu.

Press the **UP/DOWN ▲ ▼** buttons to select "Setup", then press the **ENTER** button.



2

Press the **ENTER** button to select "Time", then press the **ENTER** button to select "Clock".



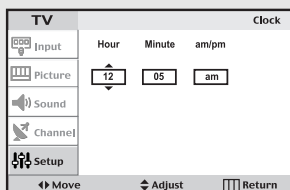
3

Press the **UP/DOWN ▲ ▼** buttons repeatedly until the correct time appears.

After the hour is entered, press the **LEFT/RIGHT ◀ ▶** buttons to select "Minute".

Press the **UP/DOWN ▲ ▼** buttons until the correct Minute appears. Press the **LEFT/RIGHT ◀ ▶** buttons to select am/pm and adjust with the **UP/DOWN ▲ ▼** buttons.

Press the **MENU** button to exit.



◀Note : You can also set the time using the numeric buttons on the remote.

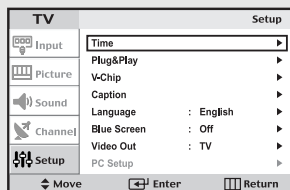
OPERATION

Setting the On/Off Timer

1

Press the **MENU** button to display the on-screen menu.

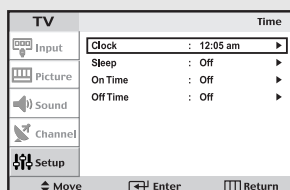
Press the **UP/DOWN ▲▼** buttons to select "Setup", then press the **ENTER** button.



◀ Before using the timer, you must set the TV's clock.
(See "Setting the Clock" on page 51)

2

Press the **ENTER** button to select "Time", then press the **ENTER** button to select "Clock".

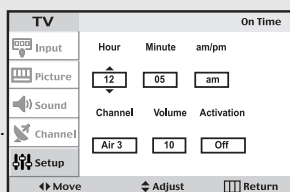
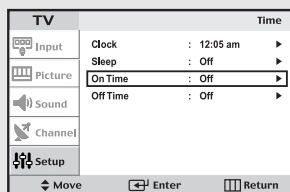


3

Press the **UP/DOWN ▲▼** buttons to select "On Time", then press the **ENTER** button.

Press the **UP/DOWN ▲▼** buttons repeatedly to select the appropriate hour.

Press the **LEFT/RIGHT ◀▶** buttons repeatedly to select the appropriate time (i.e., the time when the TV will turn on).



◀ When you set the hours, make sure the correct time of day (am or pm) appears to the right of the hour.

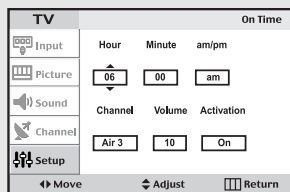
OPERATION

4

Press the **LEFT/RIGHT** ◀▶ buttons to select Setup.

Press the **UP/DOWN** ▲▼ buttons to on-timer "On".
(Repeatedly pressing the **UP/DOWN** ▲▼ buttons will alternate between On and Off.)

When finished, press the **ENTER** ⏏ button.

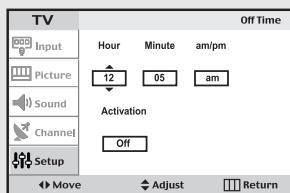
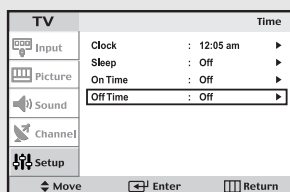


◀ To deactivate the "On time," select "Off" during this step.

5

To set the Off time, press the **UP/DOWN** ▲▼ buttons to select "Off Time".

Press the **ENTER** ⏏ button and set the hours and minutes. (Follow the same procedure as in steps 1~4 above.)



6

When finished setting the timer, press the **MENU** button to exit.

• What is Absent Power Off?

When you set the timer on, your television will be turned off if you do not operate any controls during 3 hours after you turn on the TV.

This 'Absent power off' function is available in only 'Timer on' situation.

This function will prevent the leakage accident or dissipation caused by the occasion that your TV will be left in turned on situation for a long time due to 'Timer on'.
(when you are away on holiday for example)

OPERATION

Setting the Sleep Timer

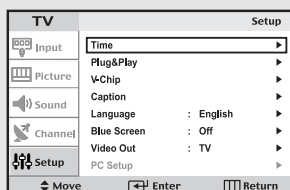
Set the timer for the TV to turn off at the preset time automatically.

Setting the On/Off Timer Using the Menu

1

Press the **MENU** button to display the on-screen menu.

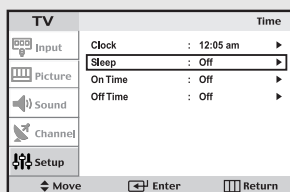
Press the **UP/DOWN ▲ ▼** buttons to select "Setup", then press the **ENTER** button.



◀ This time must be set before using the Sleep timer. See page 51.

2

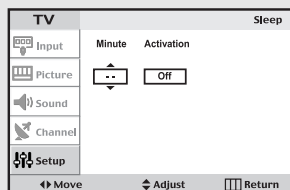
Press the **ENTER** button to select "Time", then press the **UP/DOWN ▲ ▼** buttons to select "Sleep". Press the **ENTER** button.



3

Press the **UP/DOWN ▲ ▼** buttons repeatedly until the correct time appears.

Press the **MENU** button to exit.



- Easy Way to Set the Sleep Timer**

Press the **SLEEP** button on the remote.

The number on the screen changes from Off • 30 • 60 • 90 • 120 • 150 • 180.

OPERATION

Using the V-Chip

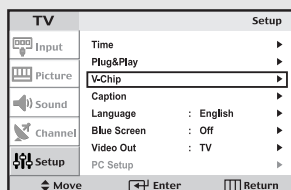
The V-Chip feature automatically locks out programming that is deemed inappropriate for children. The user must first enter a Pin (personal ID number) before any of the V-Chip restrictions can be set up or changed.

Setting Up Your Personal ID Number (PIN)

1

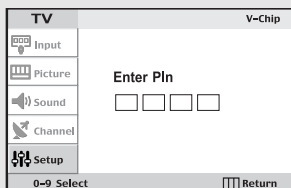
Press the **MENU** button to display the menu.

Press the **UP/DOWN ▲ ▼** buttons to select "Setup", then press the **ENTER** button.



2

Press the **UP/DOWN ▲ ▼** buttons to select "V-Chip", then press the **ENTER** button.

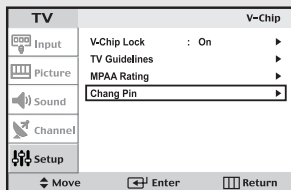


The "Enter Pin" screen will appear. Enter your 4-digit Pin number. Note: The default Pin number for a new TV set is "0-0-0-0."

3

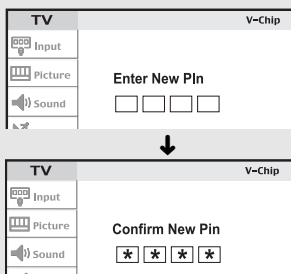
After entering a valid Pin number, the "V-Chip" screen will appear.

Press the **UP/DOWN ▲ ▼** buttons to select "Change Pin."



4

Press the **LEFT/RIGHT ◀ ▶** buttons. The Change Pin screen will appear. Choose any 4-digits for your Pin and enter them.



As soon as the 4 digits are entered, the "Confirm new Pin" screen appears. Re-enter the same 4 digits. When the Confirm screen disappears, your Pin has been memorized. Press the **MENU** button to exit.

◀ Note: If you forget the Pin, press the remote-control buttons in the following sequence, which resets the pin to 0-0-0-0:
POWER OFF → MUTE → 8 → 2 → 4 → POWER ON.

OPERATION

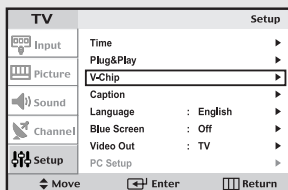
How to Enable/Disable the V-Chip

Note: V-Chip cannot be used during PIP operation.

1

Press the **MENU** button to display the menu.

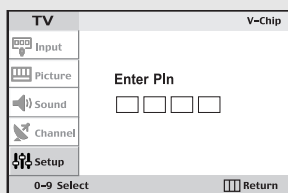
Press the **UP/DOWN ▲ ▼** buttons to select "Setup", then press the **ENTER** button.



2

Press the **UP/DOWN ▲ ▼** buttons to select "V-Chip", then press the **ENTER** button.

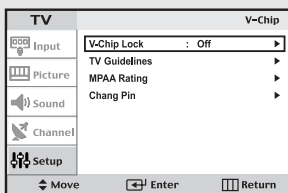
The "Enter pin" screen will appear. Enter your 4-digit Pin number.



3

The "V-Chip" screen will appear, and "V-Chip lock" will be selected.

To enable the V-Chip feature, press the **UP/DOWN ▲ ▼** buttons so that the "V-Chip Lock" is set to Yes.
(Pressing the **UP/DOWN ▲ ▼** buttons will alternate between On and Off.)



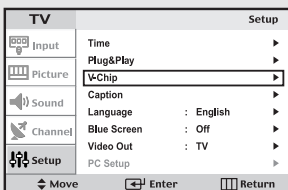
How to Set up Restrictions Using the 'TV guidelines'

First, set up a personal identification number (PIN), and enable the V-Chip. (See previous section.) Parental restrictions can be set up using either of two methods: The TV guidelines or the MPAA rating.

1

Press the **MENU** button to display the menu.

Press the **UP/DOWN ▲ ▼** buttons to select "Setup", then press the **ENTER** button.

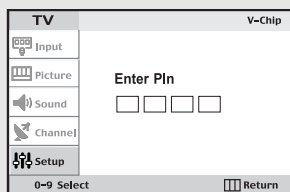


OPERATION

2

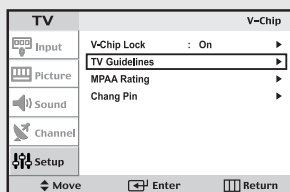
Press the **UP/DOWN ▲ ▼** buttons to select “V-Chip”, then press the **ENTER** button.

The “Enter Pin” screen will appear. Enter your 4-digit Pin number.



3

Press the **UP/DOWN ▲ ▼** buttons, to select “TV Guidelines”, then press the **ENTER** button.



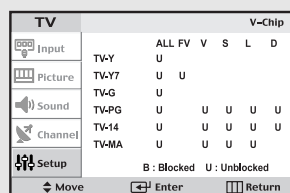
4

The “TV guidelines” screen will appear.

Press the **UP/DOWN ▲ ▼** buttons to select one of the six age-based categories:

TV-Y Young children
TV-Y7 Children 7 and over

TV-G General audience
TV-PG Parental guidance
TV-14 Viewers 14 and over
TV-MA Mature audience



◀Note: These categories consist of two separate groups : TV-Y and TV-Y7 (young children through age 7), and TV-G through TV-MA (everybody else).

The restrictions for these two groups work independently: If a household includes very young children as well as young adults, the TV guidelines must be set up separately for each age group. (See next step.)

5

At this point, one of the TV-Ratings is selected.

Press the **ENTER** button: Depending on your existing setup, the color of the letter “U” or “B” will be changed to yellow.

(U= Unblocked, B= Blocked)

When the color of the “U” or “B” is changed, press the **ENTER** button to block or unblock the category. A TV-Rating will be highlighted.

To exit this screen, press the **MENU** again. To select a different TV-Rating, press the **UP/DOWN ▲ ▼** buttons and then repeat the process.

Note 1: The TV-Y7, TV-PG, TV-14 and TV-MA have additional options.

See the next step to change any of the following sub-ratings:

FV: Fantasy Violence

D: Sexual suggestive Dialog

L: Adult Language

S: Sexual situation

V: Violence

Note 2: The V-Chip will automatically block certain categories that are “more restrictive.” For example, if you block “TV-Y” category, then TV-Y7 will automatically be blocked. Similarly, if you block the TV-G category, then all the categories in the “young adult” group will be blocked (TV-G, TV-PG, TV-14 and TV-MA). The sub-ratings (D, L, S, V) work together similarly. (See next section.)


OPERATION

6


How to set the FV, D, L, S and V sub-ratings.

First, highlight one of these TV-Ratings: TV-Y7, TV-PG, TV-14 or TV-MA



(See Step 4, on previous page).

Next, while the TV-Rating is selected, repeatedly press the **ENTER**() button.

This will cycle through the available sub-ratings (FV, L, S, D or V).

A highlight letter ("U" or "B") will be displayed for each sub-rating. While the "U" or "B" is highlight, press the **ENTER**() buttons to change the sub-rating.

Press **MENU** once to save the TV guidelines. A TV-Rating will be selected, and no letters "U" or "B" will be changed to yellow.

To exit this screen, press the **MENU** button again. To select a different TV-Rating, press the **UP/DOWN**   buttons and then repeat the process.

Note: The V-chip will automatically block certain categories that are "More restrictive". For example, if you block "L" sub-rating in TV-PG, then the "L" sub-ratings in TV-14 and TV-MA will automatically be blocked.

7

Press the **MENU** button three times to clear all the screens.




(Or proceed to the next section, and set up additional restrictions based on the MPAA codes).

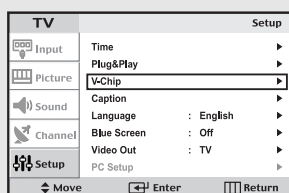
How to Set up Restrictions using the MPAA Ratings: G, PG, PG-13, R, NC-17, X

The MPAA rating system uses the Motion Picture Association of America (MPAA) system, and its main application is for movies. (Eventually, movie videocassettes will be encoded with MPAA ratings.) When the V-Chip lock is on, the TV will automatically block any programs that are coded with objectionable ratings (either MPAA or TV-Ratings).




1

Press the **MENU** button to display the menu.

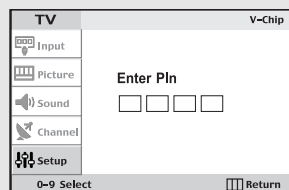
Press the **UP/DOWN**   buttons to select "Setup", then press the **ENTER**() button.



2


Press the **UP/DOWN**   buttons to select "V-Chip", then press the **ENTER**() button.

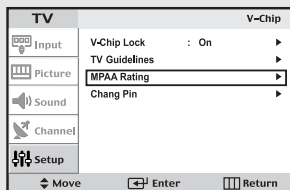
The "Enter Pin" screen will appear. Enter your 4-digit Pin number.



OPERATION

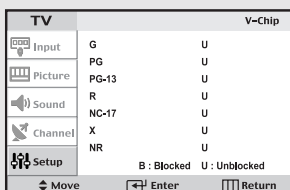
3

Press the **UP/DOWN ▲ ▼** buttons to select "MPAA Rating", then press the **ENTER**  buttons.



4

Repeatedly press the **UP/DOWN ▲ ▼** buttons to select a particular MPAA category. (When a category is selected, its color changes to blue.) Pressing the **UP/DOWN ▲ ▼** buttons will cycle through the MPAA categories:



G	General audience (no restrictions).
PG	Parental guidance suggested.
PG-13	PG-13 (Parents strongly cautioned).
R	R (Restricted. Children under 17 should be accompanied by an adult).
NC-17	No children under age 17.
X	X (Adults only).
NR	Not rated.

Press the **UP/DOWN ▲ ▼** buttons to select a category.

Press the **ENTER**  buttons to select "U" or "B".

Press the **MENU** button three times to save the settings and to clear all screens.

Note: The V-Chip will automatically block any category that is "more restrictive".


For example, if you block the "PG-13" category, then "R," "NC-17," and "X" will automatically be blocked also.

How to Reset the TV after the V-Chip Blocks a Channel ("Emergency Escape")

If the TV is tuned to a restricted channel, the V-Chip will block it. The screen will go blank and the following message will appear: "Excessive rating".

To resume normal viewing, tune to a different channel using the number buttons. Under certain conditions (depending on the rating of the local TV programs) the V-Chip might lock out all the channels.

In this case, use the Menu button for an "emergency escape":

Select the V-Chip on the Menu. Enter your Pin number, and press the **ENTER**  button to temporarily disable the V-Chip Lock.

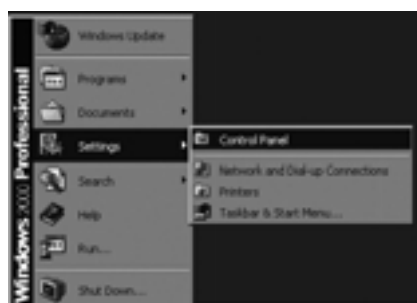
Chapter Five

PC DISPLAY

Using Your TV as a Computer (PC) Display

How to Set up Your PC Software (Windows only)

The Windows display-settings for a typical computer are shown below. However, the actual screens on your PC will probably look different, depending upon your particular version of Windows and your particular video card. Even if your actual screens look different, the same, basic set-up information will apply in most cases. (If not, contact your computer manufacturer or Samsung Dealer.)



First, click on "Settings" on the Windows start menu.

While "Settings" is highlighted, move the cursor so that "Control Panel" is highlighted.

When the control panel screen appears, click on "Display" and a display dialog-box will appear.

Navigate to the "settings" tab on the display dialog-box.



The two key variables that apply the TV-PC interface are "resolution" and "colors." The correct settings for these two variables are:

* Size (sometimes called "resolution"): 1280 x 768 pixels

If a vertical-frequency option exists on your display settings dialog box, the correct value is "60" or "60 Hz". Otherwise, just click "OK" and exit the dialog box.

* See "Display Mode" on page 74.

PC DISPLAY

Adjusting the Screen Quality

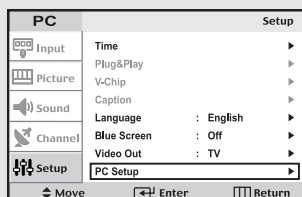
The purpose of the picture quality adjustment is to remove or reduce picture noise. If the noise is not removed by fine tuning alone, then do the frequency adjustments to the utmost and fine tune again. After the noise has been reduced, re-adjust the picture so that it is aligned on the center of screen.

Press the PC button on the remote control to select the PC mode.

1

Press the **MENU** button to display the menu.

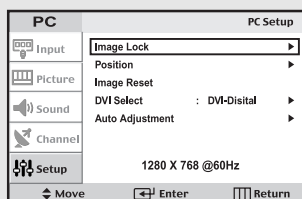
Press the **UP/DOWN ▲ ▼** buttons to select "Setup", then press the **ENTER** button.



2

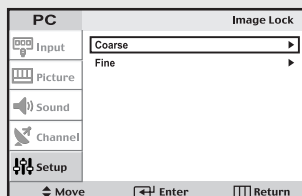
Press the **UP/DOWN ▲ ▼** buttons to select "PC Setup", then press the **ENTER** button.

Press the **ENTER** button to select "Image Lock".



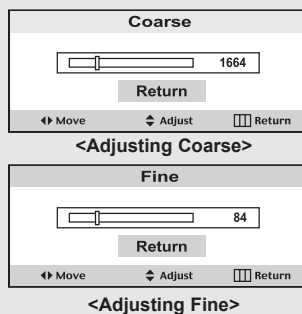
3

Press the **UP/DOWN ▲ ▼** buttons to select "Coarse" or "Fine".



4

Press the **LEFT/RIGHT ◀ ▶** buttons to adjust the screen quality, vertical stripes appear or the picture may be blurry.



5

When you are satisfied with the settings, press the **MENU** button repeatedly to return to normal viewing.

PC DISPLAY

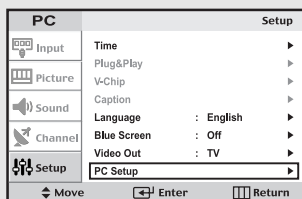
Changing the Screen Position

Press the PC button on the remote control to select the PC mode.

1

Press the **MENU** button to display the menu.

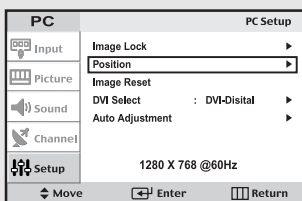
Press the **UP/DOWN ▲▼** buttons to select "Setup", then press the **ENTER** button.



2

Press the **UP/DOWN ▲▼** buttons to select "PC Setup", then press the **ENTER** button.

Press the **ENTER** button to select "Position".

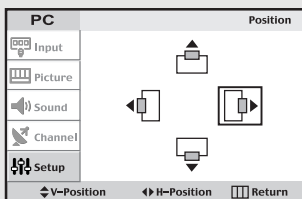


3

Press the **UP/DOWN ▲▼** buttons to adjust the V-Position.

Press the **LEFT/RIGHT ◀▶** buttons to adjust the H-Position.

Press the **MENU** button to exit.



PC DISPLAY

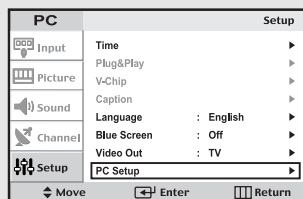
To Initialize the Screen Settings

Use to return the screen settings to the default values.

1

Press the **MENU** button to display the menu.

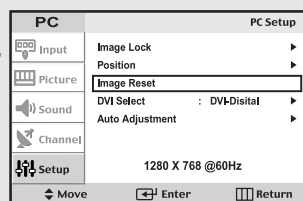
Press the **UP/DOWN ▲ ▼** button to select "Setup", then press the **ENTER** button.



2

Press the **UP/DOWN ▲ ▼** buttons to select "PC Setup", then press the **ENTER** button.

Press the **UP/DOWN ▲ ▼** buttons to select "Image Reset", then press the **ENTER** button.



3

Press the **MENU** button to exit.



PC DISPLAY

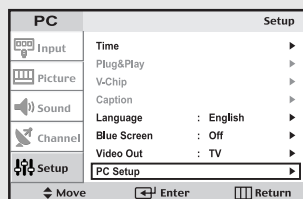
How to DVI Select

Choose the right DVI signal for your computer.

1

Press the **MENU** button to display the menu.

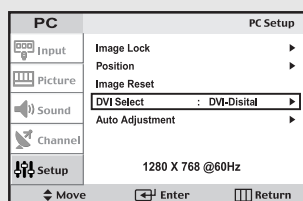
Press the **UP/DOWN ▲ ▼** button to select "Setup", then press the **ENTER** button.



2

Press the **UP/DOWN ▲ ▼** buttons to select "PC Setup", then press the **ENTER** button.

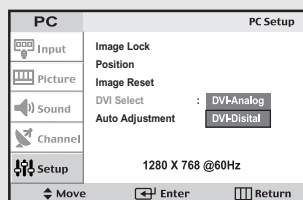
Press the **UP/DOWN ▲ ▼** buttons to select "DVI Select", then press the **ENTER** button.



3

Press the **UP/DOWN ▲ ▼** button to select "DVI Select", then press the **ENTER** button.

Press the **MENU** button to exit.



Even if the cables are connected properly, you may have selected the wrong DVI signal if you do not see the banner on the screen. Choose the right DVI signal for your computer.

PC DISPLAY

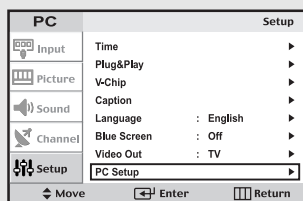
How to Auto Adjust

Use the Auto Adjust function to have the TV set automatically adjust the video signals the monitor receives. The function also automatically fine-tunes the settings and adjusts the frequency values and positions.

1

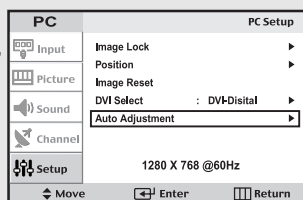
Press the **MENU** button to display the menu.

Press the **UP/DOWN ▲ ▼** button to select "Setup", then press the **ENTER** button.



2

Press the **UP/DOWN ▲ ▼** buttons to select "PC Setup", then press the **ENTER** button.



3

Press the **UP/DOWN ▲ ▼** buttons to select "Auto Adjustment", then press the **ENTER** button.



Chapter Six

TROUBLESHOOTING

If the TV seems to have a problem, first try this list of possible problems and solutions. If none of these troubleshooting tips apply, call your nearest Samsung service center.

Identifying Problems

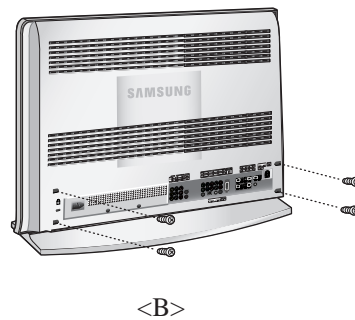
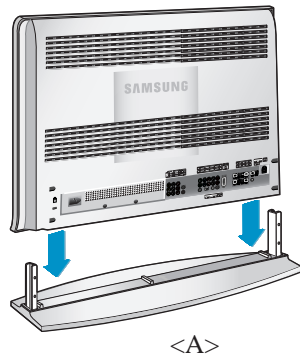
Problem	Possible Solution
Poor picture	Try another channel. Adjust the antenna. Check all wire connections.
Poor sound quality.	Try another channel. Adjust the antenna.
No picture or sound.	Try another channel. Press the TV/VIDEO button. Make sure the TV is plugged in. Check the antenna connections.
No sound or sound is too low at maximum volume.	First, check the volume of units connected to your TV (digital broadcasting receiver, DTV, DVD, cable broadcasting receiver, VCR, etc.). Then, adjust the TV volume accordingly.
No color, wrong colors or tints.	Make sure the program is broadcast in color. Adjust the picture settings. If the set is moved or turned in a different direction, the power should be OFF for at least 30 minutes. Adjust the antenna.
Picture rolls vertically.	Check all wire connections.
The TV operates erratically.	Unplug the TV for 30 seconds, then try operating it again.
The TV won't turn on.	Make sure the wall outlet is working.
Blurred or snowy picture, distorted sound.	Check the direction, location and connections of your antenna. This interference is often due to the use of an indoor antenna.
Remote control malfunctions	Replace the remote control batteries. Clean the upper edge of the remote control (transmission window). Check the battery terminals.
"Check Signal Cable" message.	Ensure that the signal cable is firmly connected to the PC source.

TROUBLESHOOTING

Problem	Possible Solution
“Not Supported Mode!” message.	Check the maximum resolution and the frequency of the video Adapter. Compare these values with the data in the Display Modes Timing Chart.
The image is too light or too dark.	Adjust the Brightness and Contrast. Adjust the Fine function.
Horizontal bars appear to flicker, jitter or shimmer on the image.	Adjust the Coarse function and then adjust the Fine function.
Vertical bars appear to flicker, jitter or shimmer on the image.	The TV is using its power management system. Move the computer’s mouse or press a key on the keyboard.
Screen is black and power indicator light blinks steadily.	Check that the display resolution and frequency from your PC or video board is an available mode for your TV. On your computer check: Control Panel, Display, Settings.
Image is not stable and may appear to vibrate.	If the setting is not correct, use your computer utility program to change the display settings. NOTE: Your TV supports multiscan display functions within the following frequency domain: <ul style="list-style-type: none"> • Horizontal frequency: 30 kHz ~ 61 kHz • Vertical frequency: 56 Hz ~ 75 Hz • Maximum refresh rate: 1280 x 768 @ 60 Hz
Image is not centered on the screen.	Adjust the horizontal and vertical position.

APPENDIX

Installing Stand



1

Lower the TV set in the direction of the arrow (at a right angle) and fix the stand.

2

Use the four screws to tightly fix the stand.

Maintenance of Your LCD TV

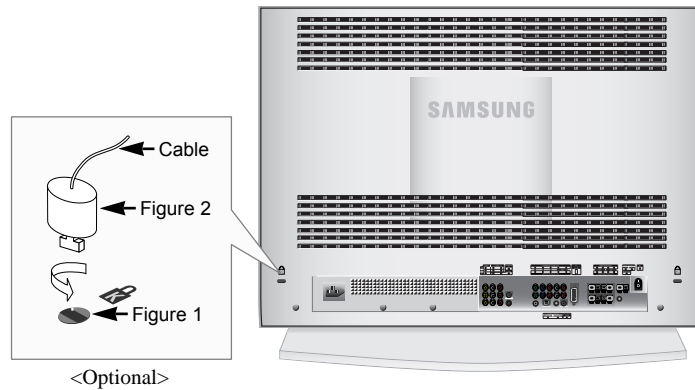
WARNING: To avoid risk of electric shock, do not disassemble the TV cabinet (except for gaining access to the cable connectors as described on Chapter 2). Users cannot service the TV. User maintenance is restricted to cleaning as explained below:

Unplug the LCD TV from the power outlet before cleaning.

- To clean your flat panel display screen, lightly dampen a soft, clean cloth with water or mild detergent. If possible, use a special screen cleaning tissue or solution suitable for the antistatic coating.
- To clean the LCD TV cabinet, use a cloth lightly dampened with a mild detergent.
- Never use flammable cleaning material to clean your LCD TV or any other electrical apparatus.

APPENDIX

Using the Anti-Theft Kensington Lock



The Kensington lock is a device used to physically fix the system when using it in a public place. The locking device has to be purchased separately. The appearance and locking method may differ from the illustration depending on the manufacturer. Please refer to the manual provided with the Kensington lock for proper use.

1

Insert the locking device into the Kensington slot on the LCD TV(Figure 1), and turn it in the locking direction(Figure 2).

2

Connect the Kensington lock cable.

3

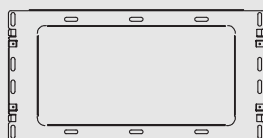
Fix the Kensington lock to a desk or a heavy stationary object.

APPENDIX

How to Install the Wall Bracket

List of Contents

Wall bracket

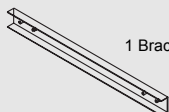


1 Wall bracket plate

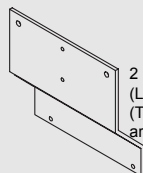


2 Assembly hinges
(Make sure they are a left /right pair.)

Main body bracket



1 Bracket bar



2 Brackets
(Left and Right)
(The two brackets
are interchangeable.)

Screws



Plastic screw anchors: 4



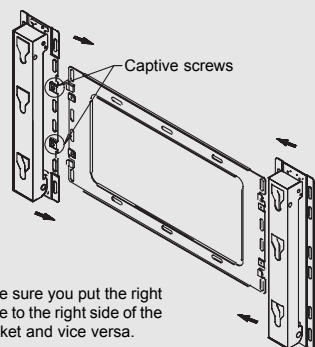
Screws: 4



Screws: 8

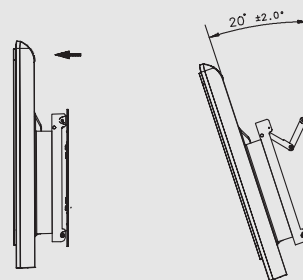
How to Adjust the Angle of the Bracket

Note: Please adjust the angle of the bracket to 0 degrees before you fix it to the wall.



Make sure you put the right hinge to the right side of the bracket and vice versa.

Be aware of the correct installation direction of the bracket when you set the angle to 30 and 32 degrees. (The direction for 30 and 32 degrees is indicated on the bracket surface.) When you first open the box, the bracket is not assembled.
Put the left and right brackets in the direction of the arrow and tighten the captive screws.



1. Attach the LCD TV onto the wall bracket.
(Follow the instructions below.)
2. Pull the upper part of the LCD TV fixed to the bracket forward in the direction of the arrow and adjust the angle.
3. You can adjust the angle to your liking between 0° ~ 20° ($\pm 2^{\circ}$).

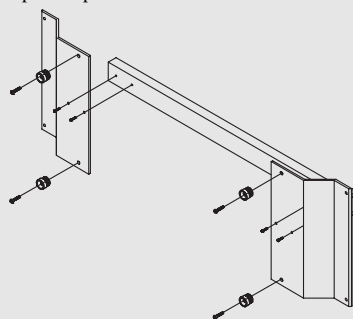
How to Attach the LCD TV to the Bracket

The LCD TV in the picture may not look exactly like yours.
(You assemble the plastic screw anchors and the screws the same way regardless of the model of your TV.)

- 1** Assemble the plastic screw anchors and the screws. (See the picture below.)



- 2** Assemble the main body bracket as below and put the plastic screw anchors in.



1) Attach the plastic screw anchors to each of the left/right brackets as in 1.

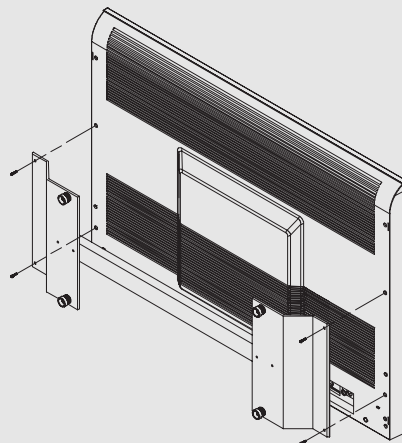
2) Assemble the bracket bars to the left/right brackets as in the picture on the left.

They are left-right and upper-lower symmetrical and the assembly direction does not matter.

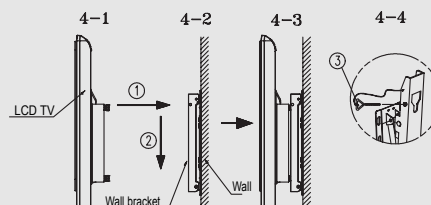
Warning

1. Installing a wall bracket must be done by a qualified professional installer.
2. After you hang the LCD TV on the wall bracket, check from both sides to see if the plastic screw anchors are securely in place.
3. Be careful not to get your fingers caught during installation or while adjusting the angle of the bracket.
4. The LCD TV may fall from the wall and hurt someone if the wall bracket is not attached securely to the wall. Make sure the bracket is screwed tightly to the wall.

- 3** Assemble the main body bracket as in the pictures in 2. and below.



- 4** Put the four holders on the back of the TV into the holes on the wall bracket, (1) lower the TV, and (2) hang the TV on the bracket. Fasten the TV securely to the wall bracket with stickscrews as in (3) so that the two will not separate.

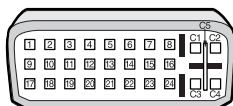


APPENDIX

Pin Assignments

Pin DVI Connection

Pin	1	2	3	4	5	6	7	8	9	10
Separate H/V	Rx 2-	Rx 2+	GND	No Connection	No Connection	DDC Clock (SCL)	DDC Data (SDA)	Analog Vertical Sync	Rx 1-	Rx 1+
Pin	11	12	13	14	15	16	17	18	19	20
Separate H/V	GND	No Connection	No Connection	DDC Input Power (+5V)	Self Raster	Output Signal Connection	Rx 0-	Rx 0+	GND	No Connection
Pin	21	22	23	24	25(C3)	26(C5)	27(C4)	28(C2)	29(C5)	30(C1)
Separate H/V	No Connection	GND	Rx C-	Rx C+	Analog (Blue)	Analog GND	Analog Horizontal Sync	Analog (Green)	Analog GND	Analog (Red)



Cleaning and Maintaining Your TV

With proper care, your TV unit will give you many years of service. Please follow these guidelines to get the maximum performance from your TV.

Placement

- Do not place the TV near extremely hot, cold, humid or dusty places.
- Do not place the TV near appliances with electric motors that create magnetic fields, such as vacuum cleaners.
- Keep the ventilation openings clear; do not place the TV on a soft surface, such as cloth or paper.
- Place the TV in a vertical position only.

Liquids

- Do not handle liquids near or on the TV.
Liquids that spill into it can cause serious damage.

Cabinet

- Never open the cabinet or touch the parts inside.
- Wipe your TV with a clean, dry cloth. Never use water, cleaning fluids, wax, or chemicals.
- Do not put heavy objects on top of the cabinet.

Temperature

- If your TV is suddenly moved from a cold to a warm place, unplug the power cord, and allow at least two hours for moisture that may have formed inside the unit to dry completely.

Using Your TV in Another Country

If you plan to take your TV with you to a foreign country, please be aware of the different television systems that are in use around the world. A TV designed for one system may not work properly with another system due to differences in the TV channel frequencies.

APPENDIX

Specifications

Model Name		LTN325W	LTN406W
Panel	Size	32.0 inch Diagonal	40.0 inch Diagonal
	Display Size	27.06(H) X 16.23(V)inch (687.36(H) X 412.42(V)mm)	34.31(H) X 20.59(V)inch (871.68(H) X 523.008(V)mm)
	Pixel Pitch	0.021(H) X 0.021(V)inch (0.537(H) X 0.537(V)mm)	0.026(H) X 0.026(V)inch (0.681(H) X 0.681(V)mm)
	Type	a-si TFT active matrix	
	Viewing Angle	170/170 (H/V)	
*Frequency	Horizontal	30 ~ 61 kHz	
	Vertical	56 ~ 75 Hz	
	Display Color	16,777,216 colors	
Display Resolution	Maximum Mode	1280 X 768 @ 60 Hz	
Input Signal	Sync. Video signal	H/V Separate, TTL, P. or N. 0.7 Vp-p @ 75 ohm	
Video	Color system	NTSC	
	Video system	CVBS, S-VHS, RGB	
Component	Video In	1.0 Vp-p @ 75 ohm	
	Audio In	500mVrms	
Power Supply	Input	AC 120 ~ , 60Hz	
Power Consumption	Maximum	180 W	260 W
	Power Saving	< 1.0 W	< 1.0 W
Dimensions / Weight	Unit (WxDxH):	31.53 X 8.58 X 24.60 inch (801.0 x 218.0 x 625.0mm)	38.89 X 12.48 X 29.13 inch (988.0 x 317.0 x 740.0mm)
	body		
	With Speaker	39.88 X 8.58 X 24.60 inch (1013.0 x 218.0 x 625.0mm)	48.42 X 12.48 X 29.13 inch (1230.0 x 317.0 x 740.0mm)
	With Stand	22 kg	32 kg
Environmental Considerations	Operating Temperature	50 °F to 104 °F (10 °C to 40 °C)	
	Operating Humidity	10% to 80%	
	Storage Temperature	-13 °F to 113 °F (-25 °C to 45 °C)	
	Storage Humidity	5% to 95%	
Audio Characteristics	Audio Input	RCA Jack Red(R) White(L), 0.5Vrms (-9dB)	
	PC Audio	3.5ø Stereo Jack, 0.5Vrms (-9dB)	
	Input		
	Headphone out	Max. 10mW Output (3.5ø Stereo Jack 32)	
	Frequency Response	RF: 80Hz ~ 15kHz (at- 3dB) A/V: 80Hz ~ 20kHz (at - 3dB)	

* Referring to Display Modes, page 74.

APPENDIX

Display Modes

If the signal from the system equals the standard signal mode, the screen is adjusted automatically. If the signal from the system doesn't equal the standard signal mode, adjust the mode by referring to your Videocard user guide; otherwise there may be no video. For the display modes listed below, the screen image has been optimized during manufacture.

Mode	Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock Frequency (MHz)	Sync Polarity (H/V)
MAC	640X480	35.000	66.667	30.240	- / -
	832X624	49.726	74.551	49.500	+ / +
IBM	640X480	31.469	59.940	25.175	- / -
	720X400	31.469	70.087	28.322	- / +
VESA	640X480	37.861	72.809	31.500	- / -
	640X480	37.500	75.000	31.500	- / -
	800X600	37.879	60.317	40.000	+ / +
	800X600	48.077	72.188	50.000	+ / +
	800X600	46.875	75.000	49.500	+ / +
	1024X768	48.364	60.000	65.000	- / -
	1024X768	56.476	70.069	75.000	- / -
	1024X768	60.023	75.029	78.750	+ / +
GTF	1280X768	47.700	60.000	80.136	- / +